

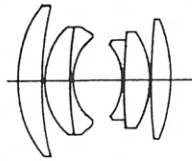
# Service Manual

**MINOLTA HI-MATIC 7SII**

**Minolta**



**HI-MATIC 7sII (457)**  
(EXPORT)  
**ROKKOR 40mm F 1.7**



#### LENS

Composition: 6 elements in 4 groups  
Type: Gauss type  
Coating: Purple coating  
Angle of view: 57°  
Aperture: EE. ~~1/16~~ (available manual operation)  
Aperture blade: 5 blades  
Aperture scale: 1.7 2.8 4 5.6 8 11 16 AUTO

#### SHUTTER

COPAL AA-506 (Shutter speed-priority automatic exposure camera)  
Speed: B. 1/8~1/500 sec.  
Blade: 5 blades  
Synchronization contact: "X" contact (M class flash bulb available use less than 1/30 sec.)  
Self timer: About 10 sec.

#### FILM ADVANCE

Winding: Lever type, quick advance winding automatically cocks (non several strokes)  
Winding angles: 130° (clearance to wind 30°)  
Film counter: Automatic resetting counter show the number of exposed frame  
Film size: 24×36mm standard 35mm film J 135  
Film rewinding: Rapid crank film rewinding for (R) button

#### VIEW FINDER

Range finder type: Reversible-Galileo type with bright frame range finder  
Finder efficiency: 0.48 times  
Dioptric power: -1 dioptry  
Length of range finder base: 26.4 mm  
Finder information: Aperture scale, warning sign, exposure meter needle, parallax correction device.  
Aperture scale: 1.7 2.8 4 5.6 8 11 16

#### FOCUSING

Focusing: Direct helicoid focusing coupled to super imposed range finder.  
Minimum focusing distance: 3 ft (0.9m)  
Distance scale: 0.9 1.2 2 3 5 (m)  
3 4 5 7 15 (ft) ∞

#### EXPOSURE METER

Measurement of reflected light with LSE CdS meter  
Light receiving angle: Vertical angle 13°  
Horizontal angle 15° (ASA 100)  
Coupling method: Lens opening is automatically set  
Working range: Shutter speed-priority automatic exposure  
EV 4.5 (F 1.7, 1/8 sec.) to EV 17 (F 16, 1/500 sec.)  
ASA range: ASA 25 to 800 (DIN 15 to 30)  
Film speed range: 25·50·100·200·400·800  
DIN 15 18 21 24 27 30  
ASA setting on lens barrel (1/3 step with click stop)

#### BATTERY

H-C type (1.35V)  
Mallory PX 675 type or equivalent

#### SIZE

4-1/2 (W) × 2-1/8 (H) × 2-5/16 (D) (in)  
115 × 72 × 59 mm

#### WEIGHT

16-1/4 oz (460g)  
Filter mount: 49φ Screw-in  
Lens shade mount: 49φ Screw-in  
Lens cap size: 51φ Slip on

#### ACCESSORIES

Hand strap, case, lens cap, lens shade and filter

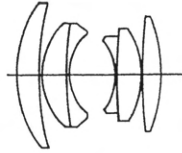
#### FEATURES

- Compact and easy to handle 35mm camera with automatic exposure control.
- Genuine high quality Rokkor lens.
- Sensitive on the lens LSE CdS cell.
- Cordless flash system by "Hot shoe".
- A lot of information coming from the electronic eye appears in the information center view-finder. F figures, warning sign, an easy-to-see needle points them out.

#### SALES DATE

Jun. 1977

ハイマチック 7SII (457)  
(輸出用)  
ロッドコール 40mm F 1.7



レンズ

構成 : 4群6枚  
タイプ : ガウス型  
コーティング : パープル  
写角 : 57°  
絞り形式 : EE絞り, マニュアル絞り  
絞り羽根 : 虹彩絞り (5枚)  
絞り目盛 : 1.7 2.8 4 5.6 8 11 16 AUTO

シャッター

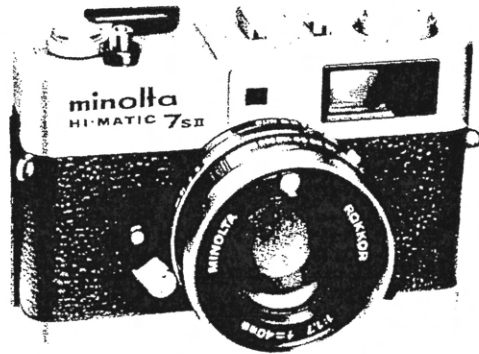
コパルAA-506 (速度優先絞りEEメカシャッター)  
露出時間 : B, 1/8~1/500  
羽根 : 5枚  
シンクロ接点 : X接点(M級バルブ1/30秒以下で使用可)  
セルフタイマー : 約10秒

フィルム送り

巻上げ形式 : 操作レバー (分割巻上げ不可)  
巻上げ角度 : 130° (引き出し角30°)  
カウンター形式 : 順算式自動復元  
使用フィルム : J 135 24×36mmフィルム  
フィルム装填 : 裏蓋蝶番開閉オートロック式  
六つ溝スプール  
巻戻し形式 : R釦セットによる折り畳みクラック巻戻し

ファインダー距離計

形式 : 逆ガリレオ式透視型 ブライトフレーム式  
ファインダー  
倍率 : 0.48×  
視度 : -1ディオプトリー  
距離計 : 測距ミラー偏角式, 二重像合致式  
基線長 : 26.4mm  
有効基線長 : 12.7mm  
ファインダー内表示 : EE時絞り値及び高低露出連動  
外警告(赤)マーク, メーター指針, パララックス匡正マーク付  
絞り目盛 : 1.7 2.8 4 5.6 8 11 16



焦点調節

形式 : 距離計連動  
繰出形式 : シングル回転ヘリコイド, 全群繰出し  
最短撮影距離 : 0.9m 回転角 36°23'  
距離目盛 : 

0.9	1.2	2	3	5 (m)
3	4	5	7	15 (ft)

 ∞

露出計

CdS測光によるメーター制御絞りEE  
受光方式 : 反射光式 LSE CdS受光部  
受光角度 : 上下 13° 左右 15° (ASA 100の場合)  
連動範囲 : EV 4.5 (F1.7, 1/8秒)  
~EV 17 (F16, 1/500秒)  
使用フィルム感度域 : ASA 25~ASA 800  
(DIN 15~30)  
フィルム感度合せ : ASA 切替リングを廻して合せる  
(CdS前面の絞り変換式)  
1/5ステップクリック式  
感度目盛 : ASA 25·50·100·200·400·800  
DIN 15 18 21 24 27 30  
使用水銀電池 : 水銀電池 JIS H-C型 (1.35V) 1個  
マロリー PX 675, エバレディー EPX 675

寸法・重量

大きさ : (巾)115×(高)72×(奥)59mm  
重量 : 460g  
フィルター寸法 : 49φ (ねじ込み式)  
フード寸法 : 49φ (ねじ込み式)  
レンズキャップ寸法 : 51φ (カブセ式)

付属品

ハンドストラップ, 皮ケース, レンズキャップ, レンズフード, フィルター

特長

- コンパクト35mmフルサイズEEカメラ
- ノンコードガン “ホットシュー” 装置付
- 距離計連動式, 絞り目盛, 露出警告マーク, パララックス匡正マーク (ファインダー内表示)

発売日 昭和52年6月



# Index

Part No.	Page	Part No.	Page	Part No.	Page
457-0102 .....	3	457-0727 .....	10	457-1043 .....	7
457-0104 .....	3	457-0728 .....	9	457-1045 .....	5
456-0111 .....	3	457-0730 .....	9	457-1046 .....	7
456-0113 .....	3	457-0731 .....	9		
457-0131 .....	1	457-0732 .....	10	456-1102 .....	3
		457-0733 .....	9	456-1108 .....	7
457-0211 .....	6	457-0734 .....	9	456-1109 .....	7
457-0212 .....	6	457-0735 .....	9	456-1110 .....	7
457-0214 .....	6	457-0737 .....	9	456-1111 .....	7
457-0215 .....	6			456-1112 .....	3
457-0251 .....	5	457-2391 .....	5	456-1113 .....	7
		457-2491 .....	9	456-1116 .....	3
456-0307 .....	7	457-4091 .....	5	456-1117 .....	3
168-0310 .....	1			456-1118 .....	3
456-0316 .....	1	3457-0201 .....	5	456-1119 .....	3
456-0319 .....	7			456-1122 .....	7
456-0321 .....	4	457-1003 .....	1	456-1123 .....	7
456-0325 .....	4	457-1004 .....	3		
456-0328 .....	8	457-1006 .....	1		
456-0329 .....	8	457-1007 .....	1	457-2001 .....	1
456-0338 .....	8	456-1008 .....	1	456-2002 .....	3
457-0346 .....	8	456-1009 .....	7		
168-0357 .....	7	456-1010 .....	7	457-2103 .....	6
457-0401 .....	6	457-1011 .....	3	457-2105 .....	6
456-0403 .....	8	456-1012 .....	1	457-2106 .....	9
457-0501 .....	4	457-1018 .....	3	457-2107 .....	5
		457-1019 .....	3	457-2108 .....	6
457-0721 .....	10	457-1023 .....	8	457-2111 .....	6
457-0722 .....	10	457-1027 .....	3	457-2112 .....	6
457-0723 .....	10	456-1028 .....	3	457-2113 .....	6
457-0724 .....	10	457-1029 .....	3	457-2114 .....	6
457-0725 .....	10	457-1033 .....	1	456-2115 .....	2
457-0726 .....	10	457-1042 .....	5	457-2116 .....	5

# Index

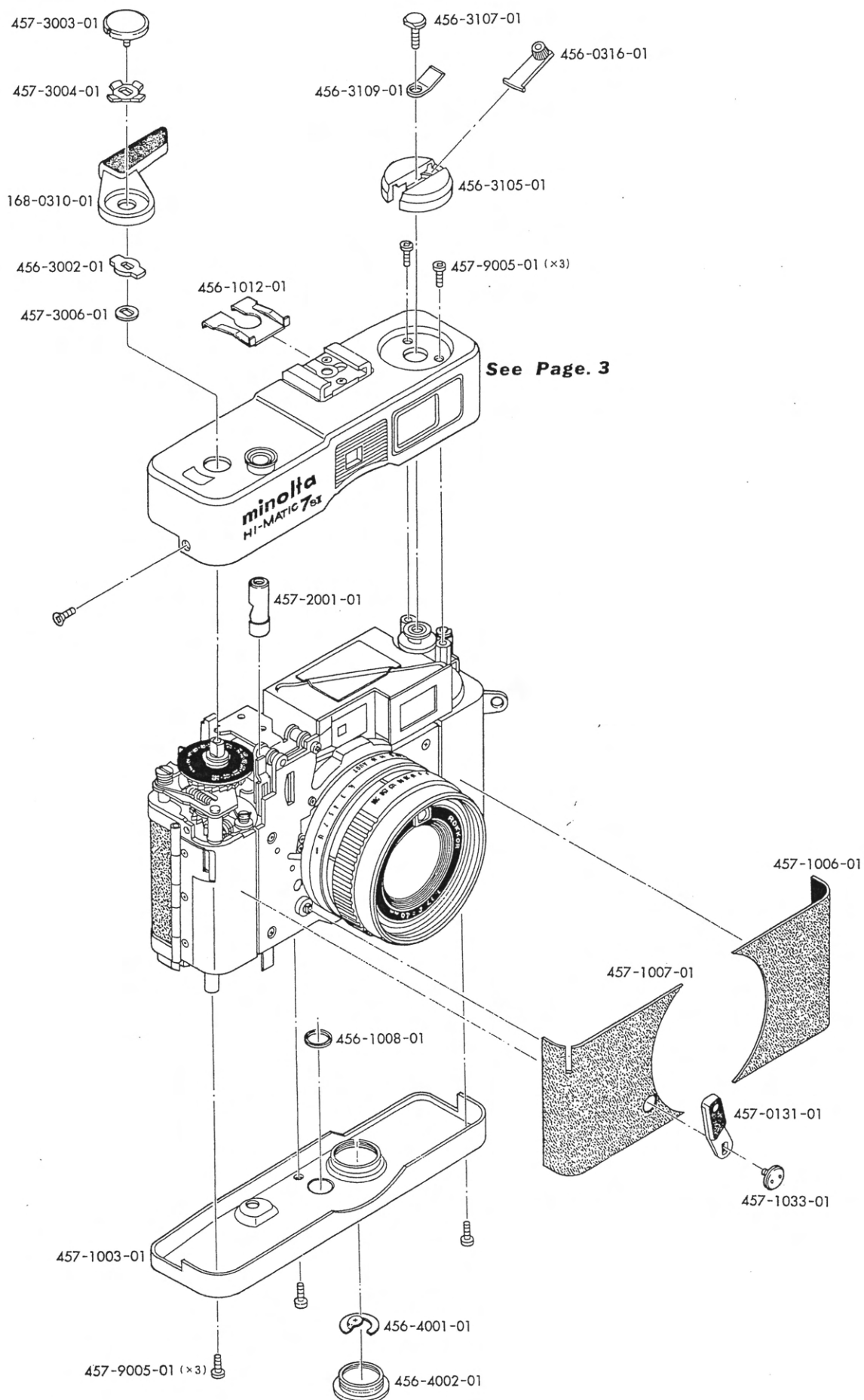
Part No.	Page	Part No.	Page	Part No.	Page
457-2122 .....	6	457-2619 .....	10	456-3024 .....	8
457-2130 .....	6	457-2620 .....	9	456-3025 .....	8
457-2131 .....	6	457-2621 .....	9	456-3026 .....	8
457-2132 .....	6	457-2622 .....	9	456-3033 .....	8
457-2133 .....	6	457-2623 .....	9	456-3034 .....	8
457-2134 .....	6	457-2624 .....	9	456-3036 .....	8
457-2135 .....	6	457-2625 .....	9	456-3041 .....	8
457-2136 .....	6	457-2626 .....	9	456-3042 .....	8
457-2137 .....	6	457-2627 .....	9	456-3043 .....	8
457-2138 .....	6	457-2630 .....	10	456-3045 .....	8
457-2139 .....	6	457-2631 .....	10	456-3047 .....	8
457-2141 .....	6	457-2632 .....	9	456-3048 .....	8
457-2142 .....	6	457-2634 .....	9	456-3049 .....	8
457-2143 .....	6	457-2635 .....	9	456-3050 .....	8
457-2153 .....	5	457-2636 .....	9	456-3051 .....	8
		457-2638 .....	9	456-3052 .....	8
457-2601 .....	10	457-2639 .....	9	456-3053 .....	8
457-2602 .....	10			456-3054 .....	8
457-2603 .....	10	456-3002 .....	1	456-3055 .....	8
457-2604 .....	10	457-3003 .....	1	456-3056 .....	7
457-2605 .....	10	457-3004 .....	1	456-3059 .....	7
457-2606 .....	10	457-3006 .....	1	456-3060 .....	7
457-2607 .....	10	456-3011 .....	7	457-3062 .....	8
457-2608 .....	10	456-3012 .....	7		
457-2610 .....	10	456-3013 .....	7	456-3101 .....	7
457-2611 .....	10	456-3014 .....	7	456-3102 .....	7
457-2612 .....	10	456-3015 .....	7	456-3103 .....	7
457-2613 .....	10	456-3016 .....	7	456-3105 .....	1
457-2614 .....	10	456-3017 .....	7	456-3107 .....	1
457-2615 .....	10	456-3018 .....	7	456-3109 .....	1
457-2616 .....	10	456-3022 .....	8		
457-2617 .....	10	456-3023 .....	8	456-3209 .....	4

# Index

Part No.	Page	Part No.	Page	Part No.	Page
456-3210 .....	4	457-9006 .....	7	9792-4060-20 .....	8
456-3211 .....	4	457-9007 .....	2	9793-1835-20 .....	5
456-3212 .....	4			9793-4060-20 .....	8
456-3213 .....	4	<b>Screw</b>			
456-3214 .....	4	9601-1223-01 .....	10		
456-3215 .....	2, 8	9611-1414-01 .....	9		
456-3216 .....	2	9611-1430-01 .....	9		
456-3217 .....	2	9611-1730-01 .....	9		
		9612-1422-00 .....	8		
456-4001 .....	1	9612-1725-00 .....	6		
456-4002 .....	1	9612-1730-00 .....	5		
		9612-1770-00 .....	6		
457-4101 .....	8	9615-1425-01 .....	9		
457-4102 .....	6	9615-1428-07 .....	8		
457-4103 .....	3	9615-1718-00 .....	6		
457-4104 .....	9	9615-1725-00 .....	6		
457-4105 .....	9	9615-1725-07 .....	7		
457-4106 .....	9	9615-1730-00 .....	6		
457-4107 .....	2	9615-1745-00 .....	5		
		9615-2028-00 .....	3		
457-5002 .....	4				
457-5005 .....	4	<b>E-ring</b>			
457-5022 .....	4	9720-0120-00 .....	6		
457-5023 .....	4	9720-0150-00 .....	7, 8		
457-5801 .....	4	9720-0020-00 .....	8		
457-5802 .....	4				
		<b>Steel ball</b>			
457-9001 .....	2, 8	9758-0120-00 .....	6		
457-9002 .....	2				
457-9003 .....	2	<b>Washer</b>			
457-9004 .....	2	9791-4060-20 .....	8		
457-9005 .....	1	9792-1830-20 .....	2		

# MINOLTA HI-MATIC 7s II

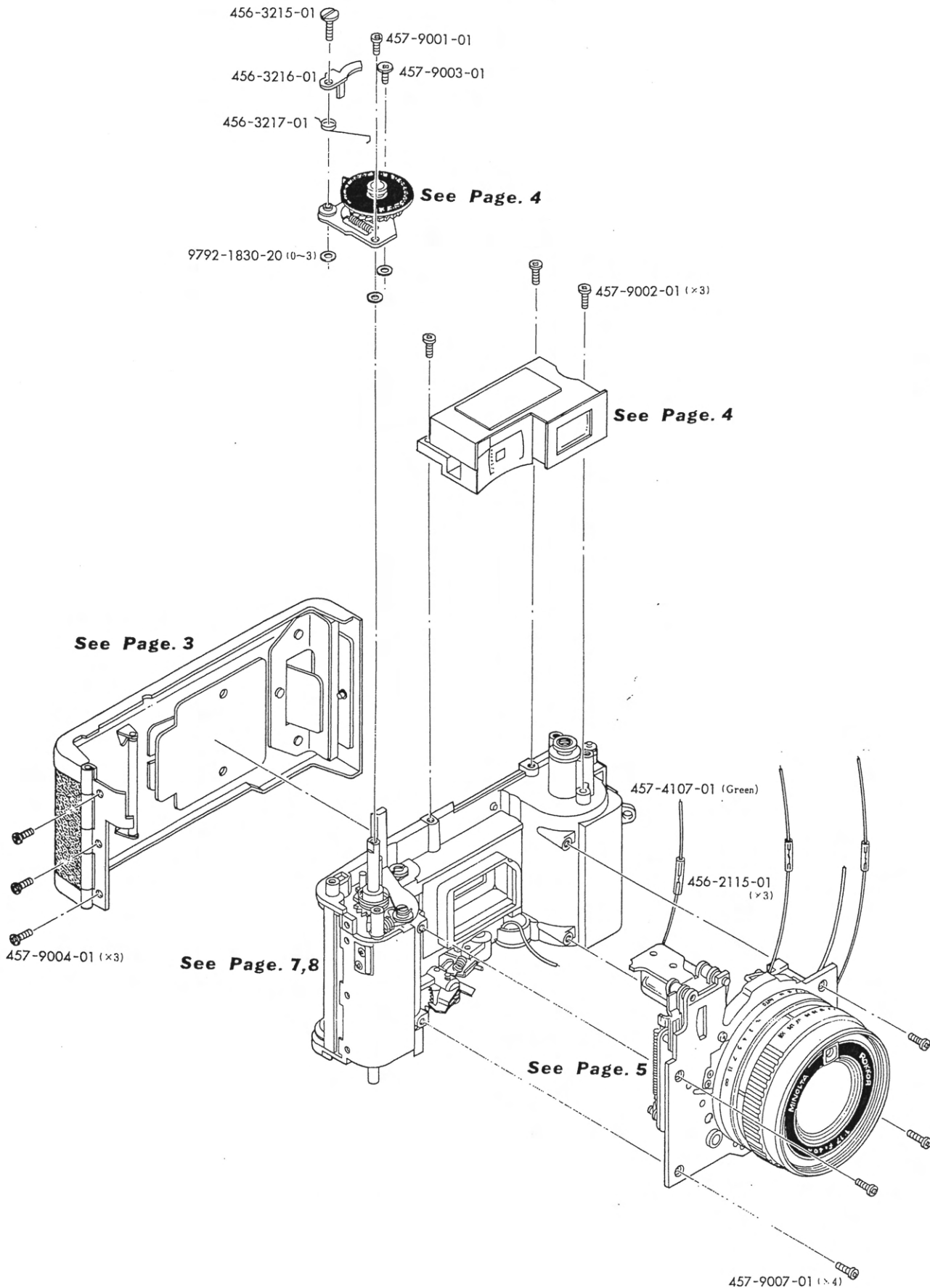
CODE No. 457



Part No.	Part Name	Qty
部品番号	部 品 名 称	員数
457-0131-01	Self-lever set セルフレバーセット	1
168-0310-01	Film advance lever set 巻上レバーセット	1
456-0316-01	Film rewinding handle set 巻戻しハンドルセット	1
457-1003-01	Bottom cover 下カバー	1
457-1006-01	Leather-A 貼皮-A	1
457-1007-01	Leather-B 貼皮-B	1
456-1008-01	Tripod socket collar 三脚ねじカラー	1
456-1012-01	Accessory clip spring アクセサリーシュースプリング	1
457-1033-01	Self lever pressure セルフレバー押え	1
457-2001-01	Shutter release button シャッターボタン	1
456-3002-01	Winding lever coupling washer 巻上レバー結合子	1
457-3003-01	Film advance lever pressure 巻上レバー押え	1
457-3004-01	Film advance lever spring washer 巻上レバースプリングワッシャー	1
457-3006-01	Film advance axis washer 巻上軸ワッシャー	1
456-3105-01	Film rewinding knob 巻戻しノブ	1
456-3107-01	Film rewinding knob pressure 巻戻しノブ押え	1
456-3109-01	Film rewinding handle spring 巻戻しハンドル板スプリング	1
456-4001-01	Battery plus contact 電池プラス接片	1
456-4002-01	Battery compartment cover 電池蓋	1
457-9005-01	Screw カバー止めねじ	6

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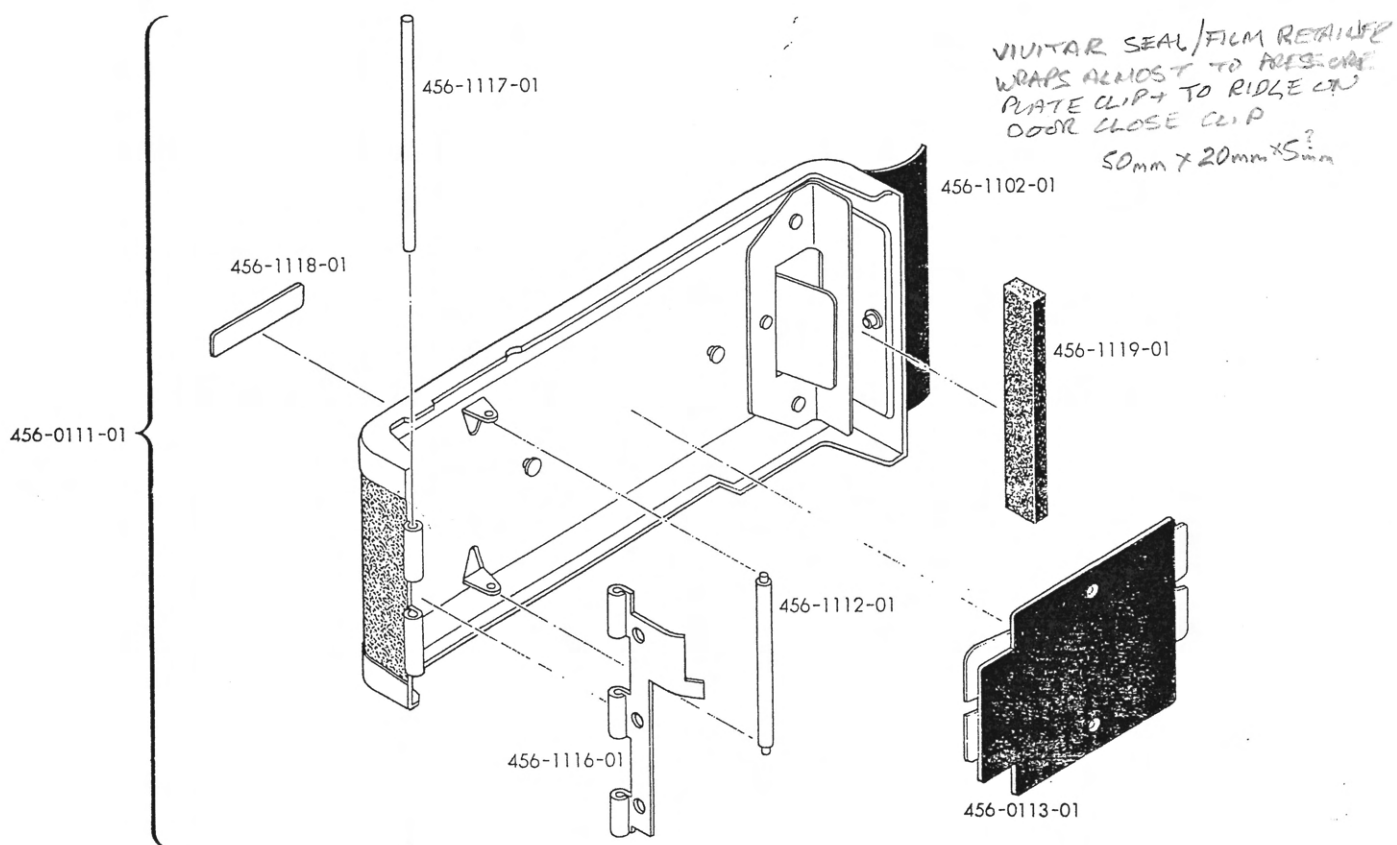
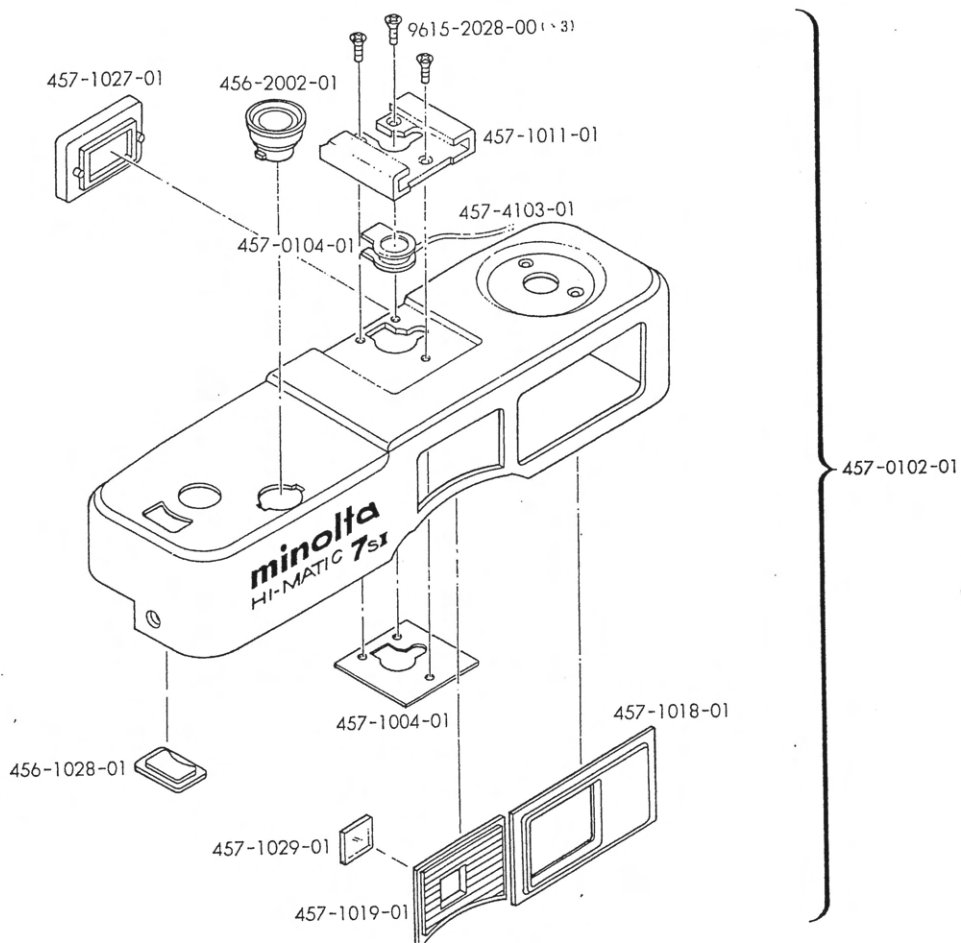
CODE No. 457



Part No.	Part Name	Qty
部品番号	部 品 名 称	員数
456-2115-01	Tube チューブ	3
456-3215-01	Counter release lever screw カウンター解除レバー止めねじ	1
456-3216-01	Counter release lever カウンター解除レバー	1
456-3217-01	Counter release lever spring カウンター解除レバースプリング	1
457-4107-01	Lead wire-Green $\ell=75\text{mm}$ , $\phi 0.12/7$ wires: $\phi 1$ リード線 (緑)	1
457-9001-01	Counter set screw-A カウンター止めねじA	1
457-9002-01	Rangefinder set screw 距離計止めねじ	3
457-9003-01	Counter set screw-B カウンター止めねじB	1
457-9004-01	Back cover set screw 裏ぶた止めねじ	3
457-9007-01	Front plate set screw 前板止めねじ	4
9792-1830-20	Washer 薄ワッシャー	0~3

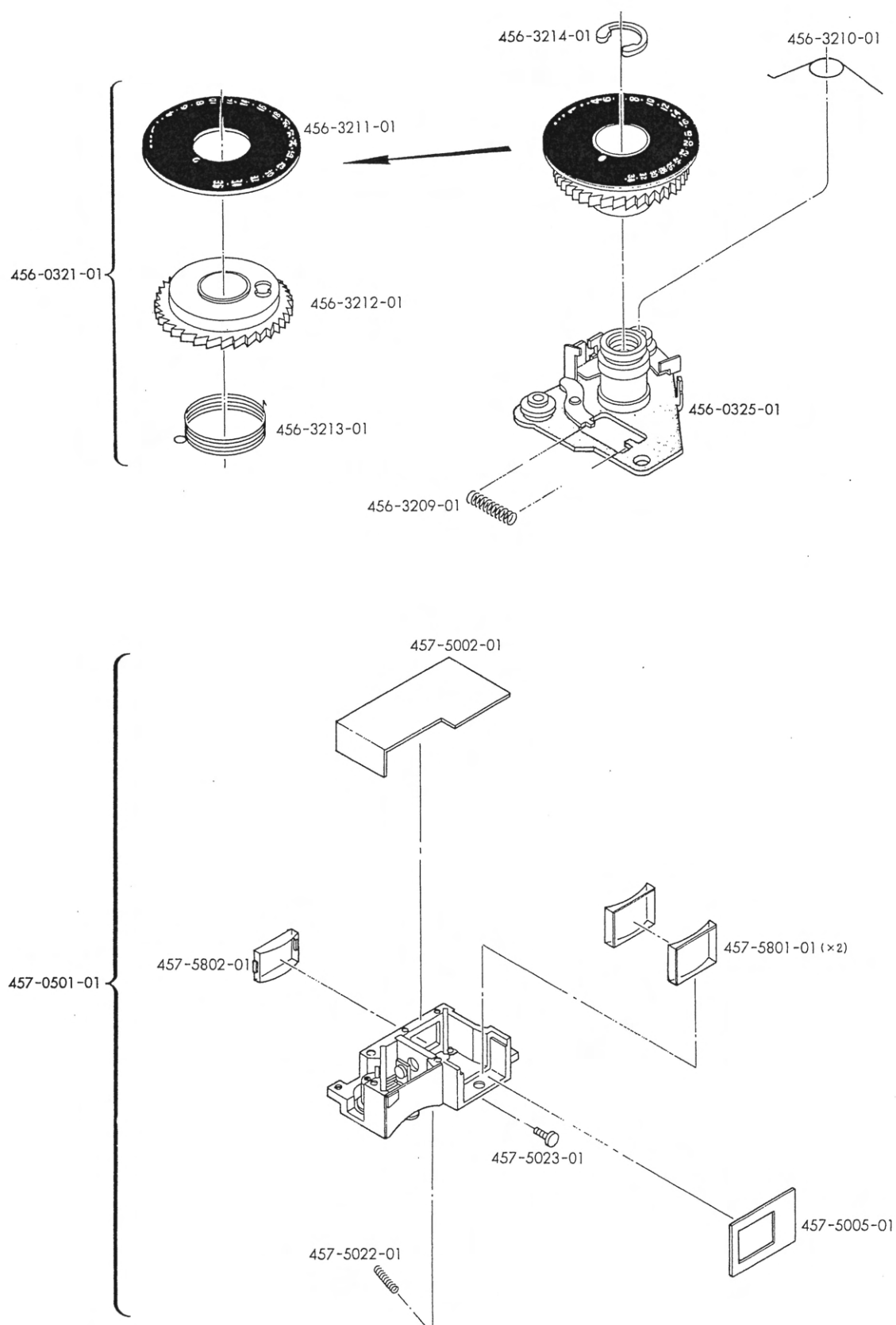
# MINOLTA HI-MATIC 7s II

CODE No. 457





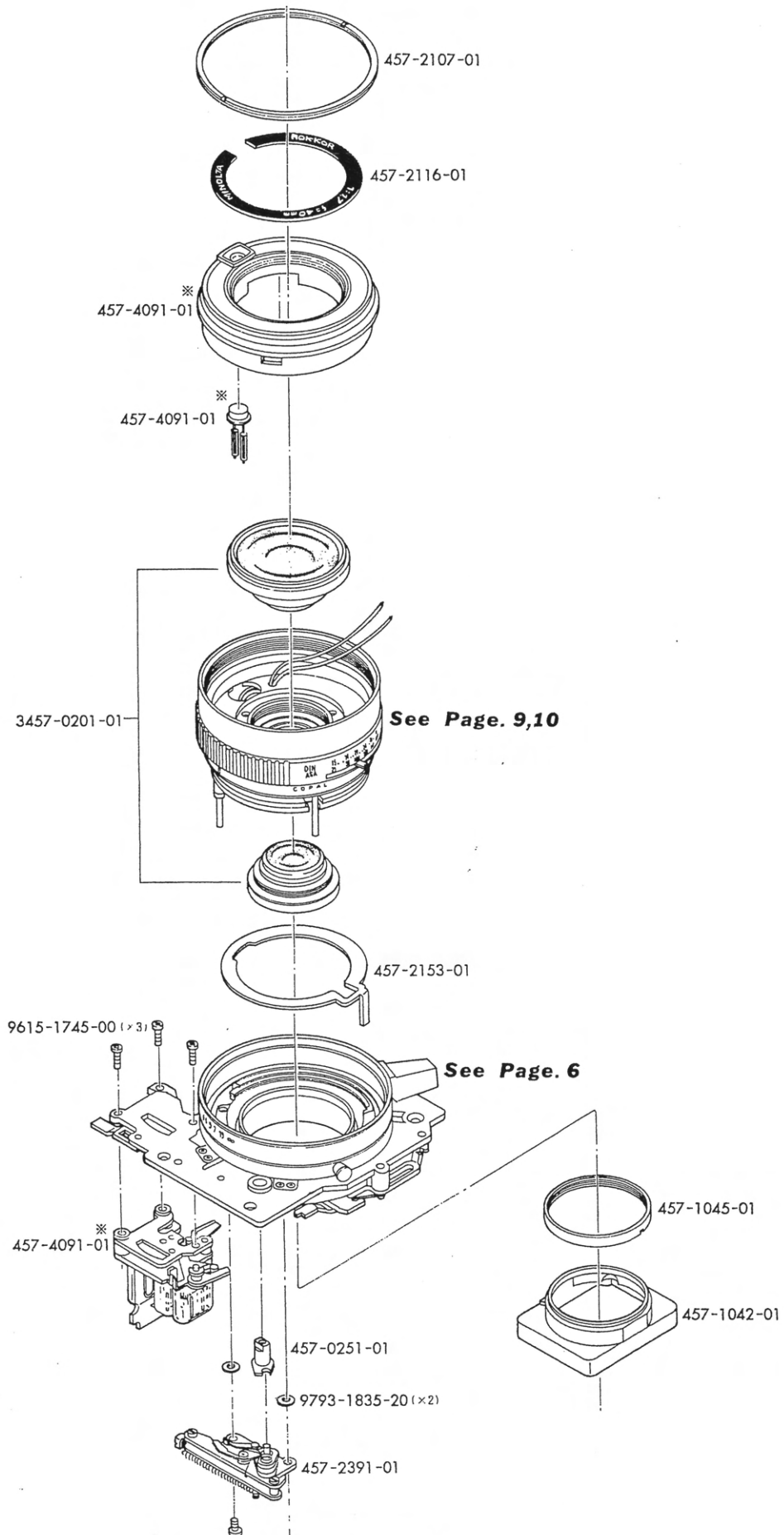
Part No. 部品番号	Part Name 部 品 名 称	Qty 員数
457-0102-01	Top cover set 上カバーセット	1
457-0104-01	Synchro contact set シンクロ接点セット	1
(457-4103-01)	Lead wire-White $\ell=65\text{mm}$ , $\phi 0.12/7$ wires: $\phi 1$ リード線 (白)	1
457-1004-01	Accessory shoe seat アクセサリーシュー座	1
457-1011-01	Accessory shoe アクセサリーシュー	1
457-1018-01	Objective lens frame 対物レンズ枠	1
457-1019-01	Acrylic plate アクリル板	1
457-1027-01	Eye-piece frame 接眼枠	1
456-1028-01	Film counter window カウンター窓	1
457-1029-01	Glass ガラス	1
456-2002-01	Shutter release button base シャッターボタン座	1
9615-2028-00	Phillips type screw 十字穴付皿小ねじ	3
456-0111-01	Back cover set 裏ぶたセット	1
456-1102-01	Back cover leather 裏ぶた貼皮	1
456-1112-01	Film press roller フィルム押えローラー	1
456-1116-01	Hinge ヒンジ	1
456-1117-01	Hinge axis ヒンジ軸	1
456-1118-01	Body number plate No.プレート	1
456-1119-01	Light shield packing 裏ぶた遮光パッキン	1
456-0113-01	Pressure plate set 圧着板セット	1

**MINOLTA HI-MATIC 7s II****CODE No. 457**

Part No.	Part Name	Qty
部品番号	部 品 名 称	員数
456-0321-01	Film counter dial set カウンターダイヤルセット	1
456-3211-01	Film counter dial カウンターダイヤル	1
456-3212-01	Counter ratchet gear カウンターラチエット	1
456-3213-01	Counter returning spring カウンター戻しスプリング	1
456-0325-01	Counter base plate set カウンター台板セット	1
456-3209-01	Counter spring カウンター送りスプリング	1
456-3210-01	Reverse prevent spring 逆転止めスプリング	1
457-0501-01	Rangefinder set 距離計セット	1
457-5002-01	Finder cover ファインダーカバー	1
457-5005-01	Objective lens cover 対物レンズカバー	1
457-5022-01	Spring スプリング	1
457-5023-01	Adjstment screw 距離計調整ビス	1
457-5801-01	Objective lens 対物レンズ	2
457-5802-01	Eye-piece lens 接眼レンズ	1
456-3214-01	Dial setting ring ダイヤル押えリング	1

# MINOLTA HI-MATIC 7s II

CODE No. 457



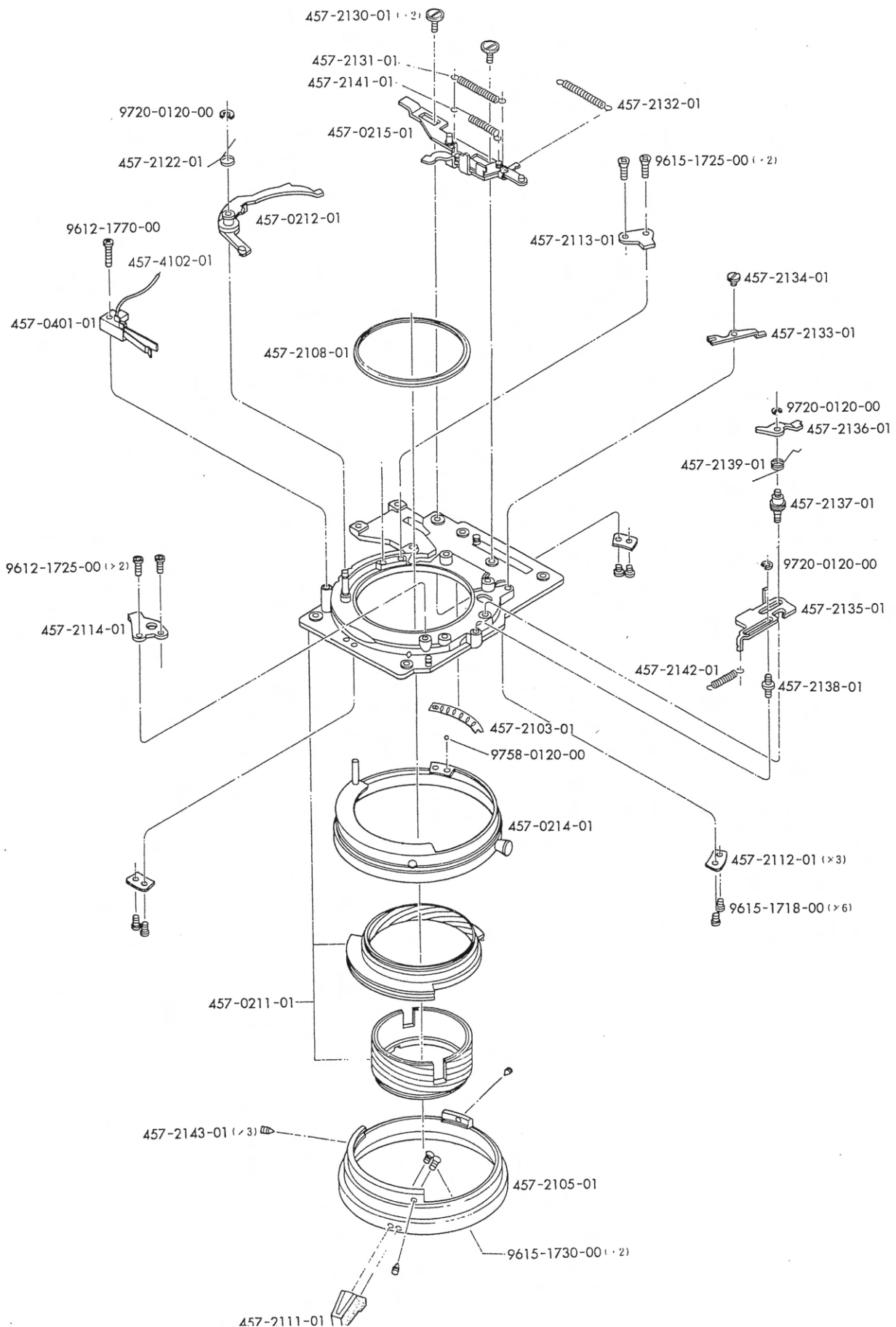
Part No. 部品番号	Part Name 部 品 名 称	Qty 員数
457-0251-01	Self lever axis set セルフ軸セット	1
457-2391-01	Self timer セルフタイマー	1
457-4091-01	Exposure meter set メーター	1
3457-0201-01	Lens group set 撮影レンズセット	1
457-1042-01	Light shield cover-A 遮光筒 A	1
457-1045-01	Light shield ring 遮光環	1
457-2107-01	Name plate pressure 飾り環押え	1
457-2116-01	Name plate 飾り環	1
457-2153-01	Shutter set ring シャッターセットリング	1
9612-1730-00	Phillips type screw 十字穴付なべ頭小ねじ	2
9615-1745-00	Phillips type screw 十字穴付皿小ねじ	3
9793-1835-20	Washer 薄ワッシャー	2

**NOTE:** When the following three exposure meter parts replacement, must be used only in the Combination. MOVING COIL, CdS CELL and FIXED RESISTOR. Handle with care can not in order each single part of the above.

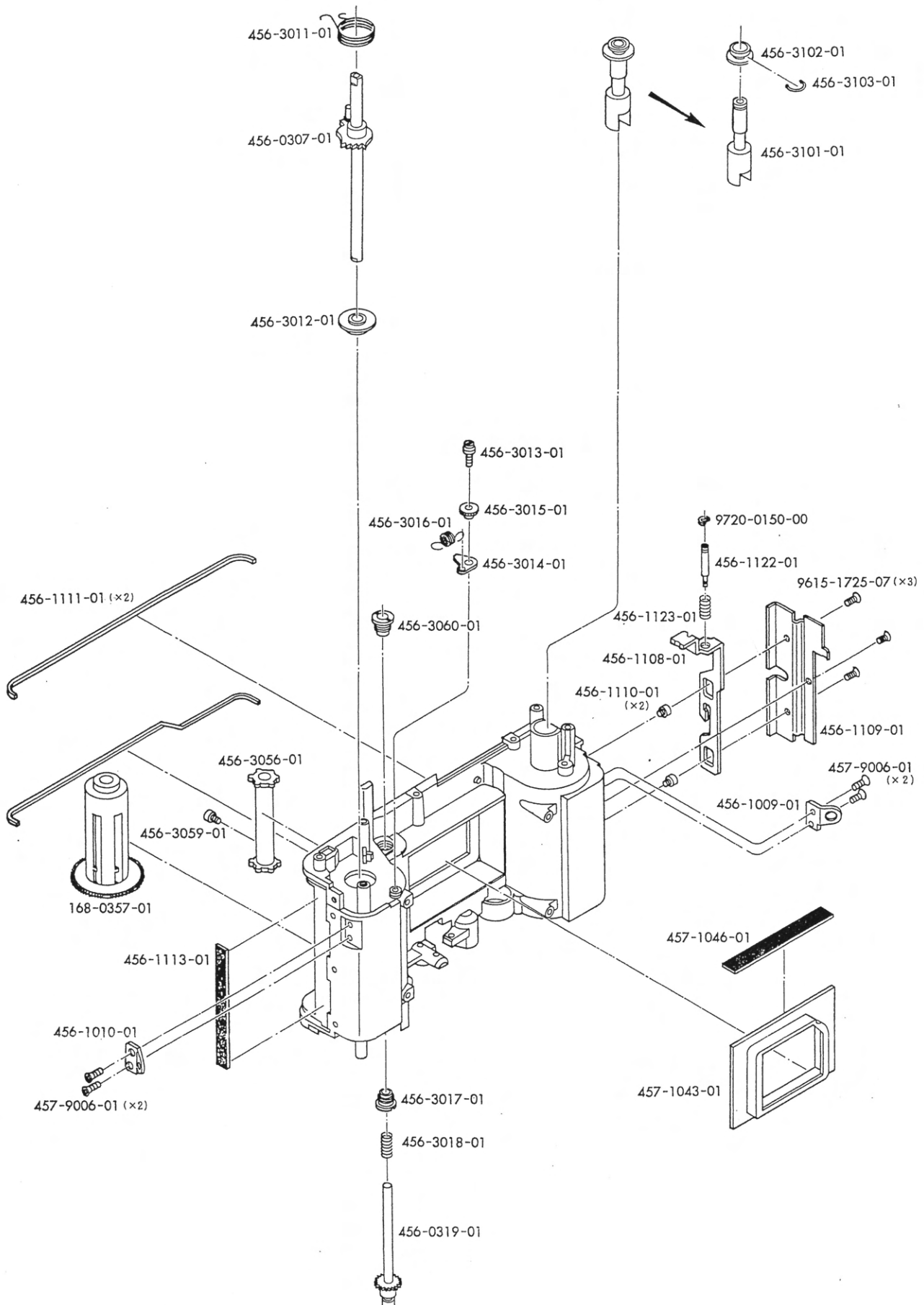
注：メーター可動部，CdS，或いは固定抵抗が不良である場合は必ず前記三点のセットで取り換えて下さい。それぞれの単体では取り換えできませんのでご注意下さい。

# MINOLTA HI-MATIC 7s II

CODE No. 457



Part No. 部品番号	Part Name 部 品 名 称	Qty 員数
457-0211-01	Helicoid set ヘリコイドセット	1
457-0212-01	Diaphragm lever set 絞りレバーセット	1
457-0214-01	Diaphragm ring set 絞り環セット	1
457-0215-01	Release lever set レリーズレバーセット	1
457-0401-01	Switch set スイッチセット	1
457-4102-01	Lead wire-Green $\ell=55\text{mm}$ $\phi 0.12/7$ wires: $\phi 1$ リード線 (緑)	1
457-2103-01	Click plate クリック板	1
457-2105-01	Distance scale ring 距離環	1
457-2108-01	Helicoid pressure ヘリコイド押え	1
457-2111-01	Distance scale ring knob 距離環つまみ	1
457-2112-01	Diaphragm ring set plate 絞り環止め座	3
457-2113-01	Helicoid key-A 直進キーA	1
457-2114-01	Helicoid key-B 直進キーB	1
457-2122-01	Diaphragm lever spring 絞りレバースプリング	1
457-2130-01	Release lever axis レリーズレバー軸	2
457-2131-01	Spring-B スプリングB	1
457-2132-01	Release lever spring-A レリーズレバースプリングA	1
457-2133-01	Release coupling lever レリーズ連動レバー	1
457-2134-01	Release lever axis. レリーズレバー軸	1
457-2135-01	Shutter set plate シャッターセット板	1
457-2136-01	Exposure prevension lever 二重露出防止レバー	1
457-2137-01	Set plate axis-A セット板軸A	1
457-2138-01	Set plate axis-B セット板軸B	1
457-2139-01	Exposure prevension lever spring 二重露出防止レバースプリング	1
457-2141-01	Spring-C スプリングC	1
457-2142-01	Set plate spring セット板スプリング	1
457-2143-01	Adjustment screw 距離環調整ねじ	3
9612-1725-00	Phillips type screw 十字穴付なべ頭小ねじ	2
9612-1770-00	Phillips type screw 十字穴付なべ頭小ねじ	1
9615-1718-00	Phillips type screw 十字穴付皿小ねじ	6
9615-1725-00	Phillips type screw 十字穴付皿小ねじ	2
9615-1730-00	Phillips type screw 十字穴付皿小ねじ	2
9720-0120-00	E-ring Eリング	3
9758-0120-00	Steel ball スチールボール	1

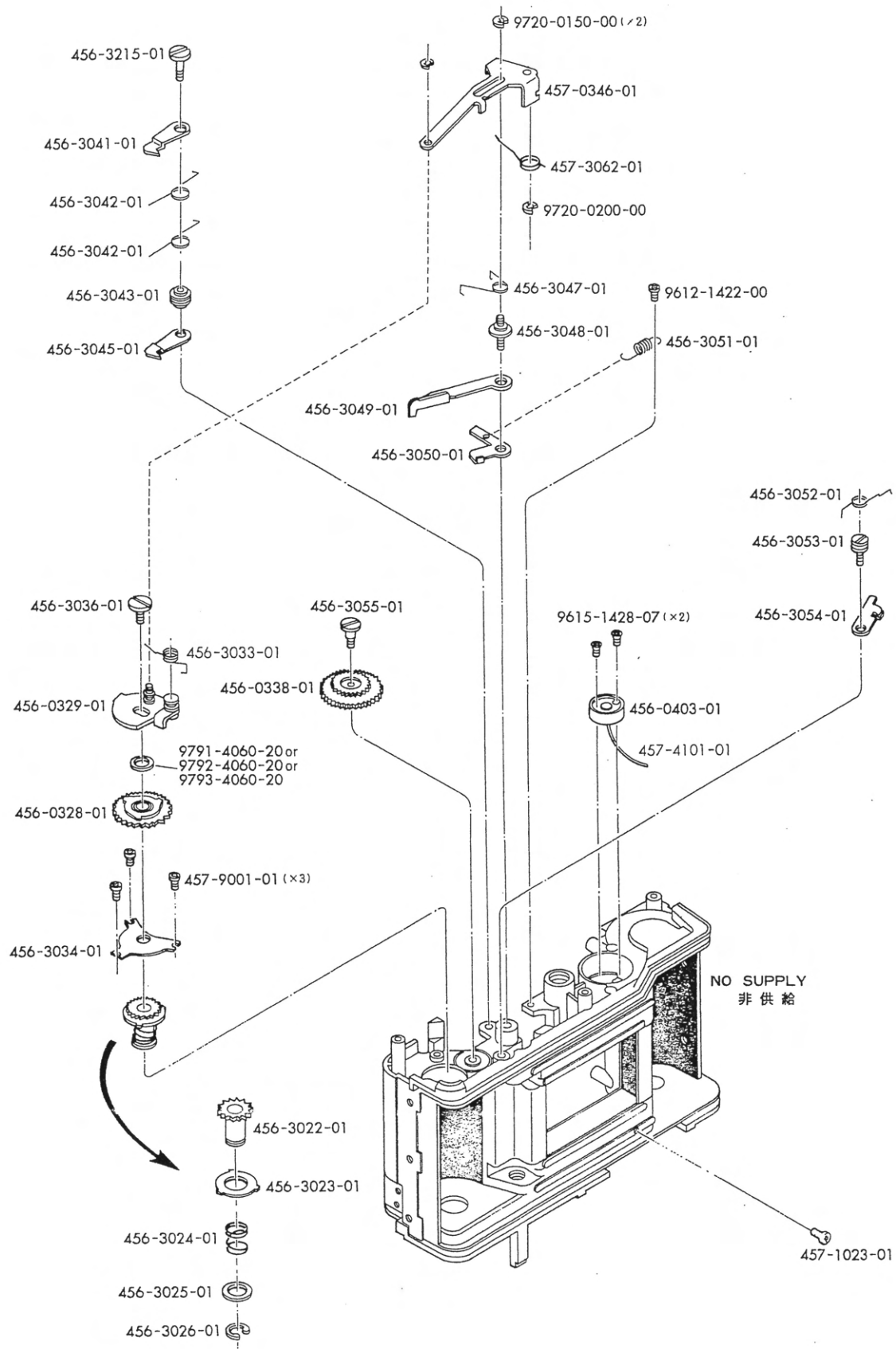
**MINOLTA HI-MATIC 7sII****CODE No. 457**



Part No. 部品番号	Part Name 部 品 名 称	Qty 員数
456-0307-01	Film advance shaft set 巻上軸セット	1
456-0319-01	Sprocket axis set 巻戻しボタンセット	1
168-0357-01	Spool set スプールセット	1
456-1009-01	Strap hanger (Left) 吊環 (左)	1
456-1010-01	Strap hanger (Right) 吊環 (右)	1
457-1043-01	Light shield cover-B 遮光筒 B	1
457-1046-01	Light shield plate 遮光紙	1
456-1108-01	Lock plate 裏ぶたロック板	1
456-1109-01	Lock cover ロック板押え	1
456-1110-01	Lock plate guide ロック板ガイド	2
→ 456-1111-01	Light shield packing 裏ぶた遮光パッキン (1.3mm × 2? ×	2
→ 456-1113-01	Body light shield packing ボデー遮光パッキン (49.5mm × 4mm ×	1
456-1122-01	Lock spring axis ロックスプリング軸	1
456-1123-01	Lock spring ロックスプリング	1
456-3011-01	Advance lever returning spring 巻上レバー戻しスプリング	1
456-3012-01	Advance lever axis receiver 巻上レバー軸受	1
456-3013-01	Winding ratchet axis 巻上ラチェット軸	1
456-3014-01	Winding ratchet 巻上ラチェット	1
456-3015-01	Winding ratchet axis receiver 巻上ラチェット軸受	1
456-3016-01	Winding ratchet spring 巻上ラチェットスプリング	1
456-3017-01	Sprocket axis receiver (Lower) スプロケット軸受 (下)	1
456-3018-01	Sprocket spring スプロケットスプリング	1
456-3056-01	Sprocket スプロケット	1
456-3059-01	Sprocket screw スプロケットねじ	1
456-3060-01	Sprocket axis receiver (Upper) スプロケット軸受 (上)	1
456-3101-01	Film rewind axis 巻戻し軸	1
456-3102-01	Film rewind axis receiver 巻戻し軸受	1
456-3103-01	Film rewind axis spring 巻戻し軸スプリング	1
457-9006-01	Lock plate set screw ロック板止めねじ	4
9615-1725-07	Phillips type screw 十字穴付皿小ねじ	3
9720-0150-00	E-ring Eリング	1

# MINOLTA HI-MATIC 7s II

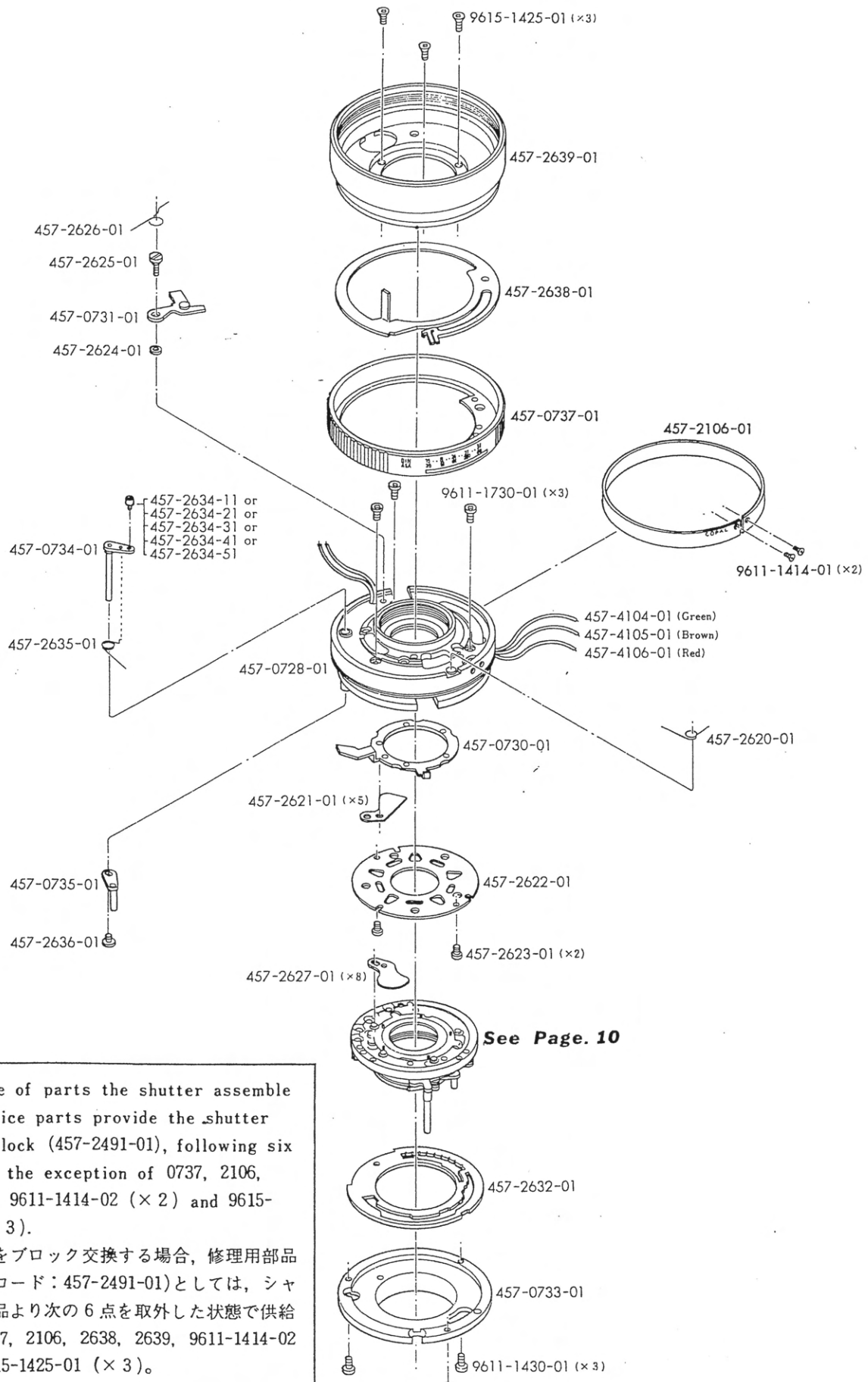
CODE No. 457



Part No.	Part Name	Qty
部品番号	部 品 名 称	員数
456-0328-01	Film advance gear set 巻取ギヤーセット	1
456-0329-01	Film advance operation plate set チャージ台板セット	1
456-3033-01	Film advance operation plate spring 送り爪スプリング	1
456-0338-01	Idle gear set アイドルギヤーセット	1
457-0346-01	Film advance operation lever set 巻上操作レバーセット	1
456-0403-01	Battery minus contact set バッテリーマイナス接片セット	1
457-4101-01	Lead wire-Red $\ell=50\text{mm}$ $\phi 0.12/7$ wires: $\phi 1$ リード線 (赤)	1
457-1023-01	Screw 飾りビス	1
456-3022-01	Spool gear スプールギヤー	1
456-3023-01	Spool nail スプール爪	1
456-3024-01	Slide spring 滑りスプリング	1
456-3025-01	Slide spring set washer スプリング受け	1
456-3026-01	Slide spring set ring スプリング止め輪	1
456-3034-01	Spool gear pressure スプールギヤー押え	1
456-3036-01	Operation plate set screw チャージ板止めねじ	1
456-3041-01	Inversion prevention lever-B 逆転防止レバーB	1
456-3042-01	Inversion prevention lever spring 逆転防止レバースプリング	2
456-3043-01	Inversion prevention lever axis 逆転防止レバー軸	1
456-3045-01	Inversion prevention lever-A 逆転防止レバーA	1
456-3047-01	Film advance stop lever spring 巻止めレバースプリング	1
456-3048-01	Film advance stop lever axis 巻止めレバー軸	1
456-3049-01	Film advance stop lever 巻止めレバー	1
456-3050-01	Operation lever 巻上解除レバー	1
456-3051-01	Operation lever spring 巻上解除レバースプリング	1
456-3052-01	Clutch lever spring クラッチレバースプリング	1
456-3053-01	Clutch lever axis クラッチレバー軸	1
456-3054-01	Clutch lever クラッチレバー	1
456-3055-01	Idle gear axis アイドルギヤー軸	1
457-3062-01	Film advance operation lever spring 巻上操作レバースプリング	1
456-3215-01	Inversion prevention lever screw 逆転防止レバーねじ	1
457-9001-01	Spool gear pressure set screw スプールギヤー押え止めねじ	3
9612-1422-00	Phillips type screw 十字穴付なべ頭小ねじ	1
9615-1428-07	Phillips type screw 十字穴付皿小ねじ	2
9720-0150-00	E-ring Eリング	2
9720-0200-00	E-ring Eリング	1
9791-4060-20	Washer 薄ワッシャー	0~1
9792-4060-20	Washer 薄ワッシャー	0~1
9793-4060-20	Washer 薄ワッシャー	0~1

# MINOLTA HI-MATIC 7s II

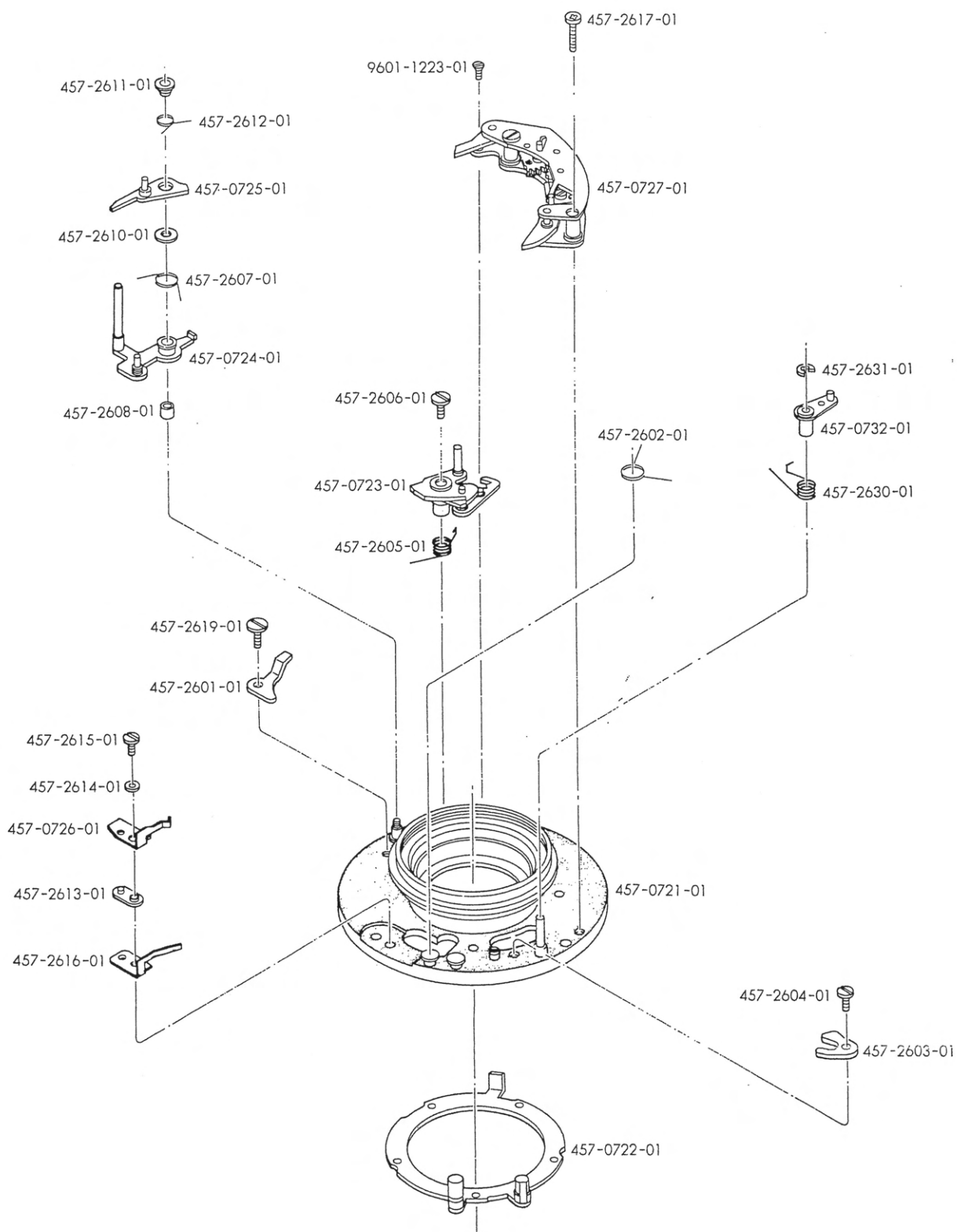
CODE No. 457



★ If exchange of parts the shutter assemble block, service parts provide the shutter assemble block (457-2491-01), following six parts with the exception of 0737, 2106, 2638, 2639, 9611-1414-02 (×2) and 9615-1425-01 (×3).

★ シャッターをブロック交換する場合、修理用部品（ブロックコード：457-2491-01）としては、シャッター完成品より次の6点を取外した状態で供給される。0737, 2106, 2638, 2639, 9611-1414-02 (×2), 9615-1425-01 (×3)。

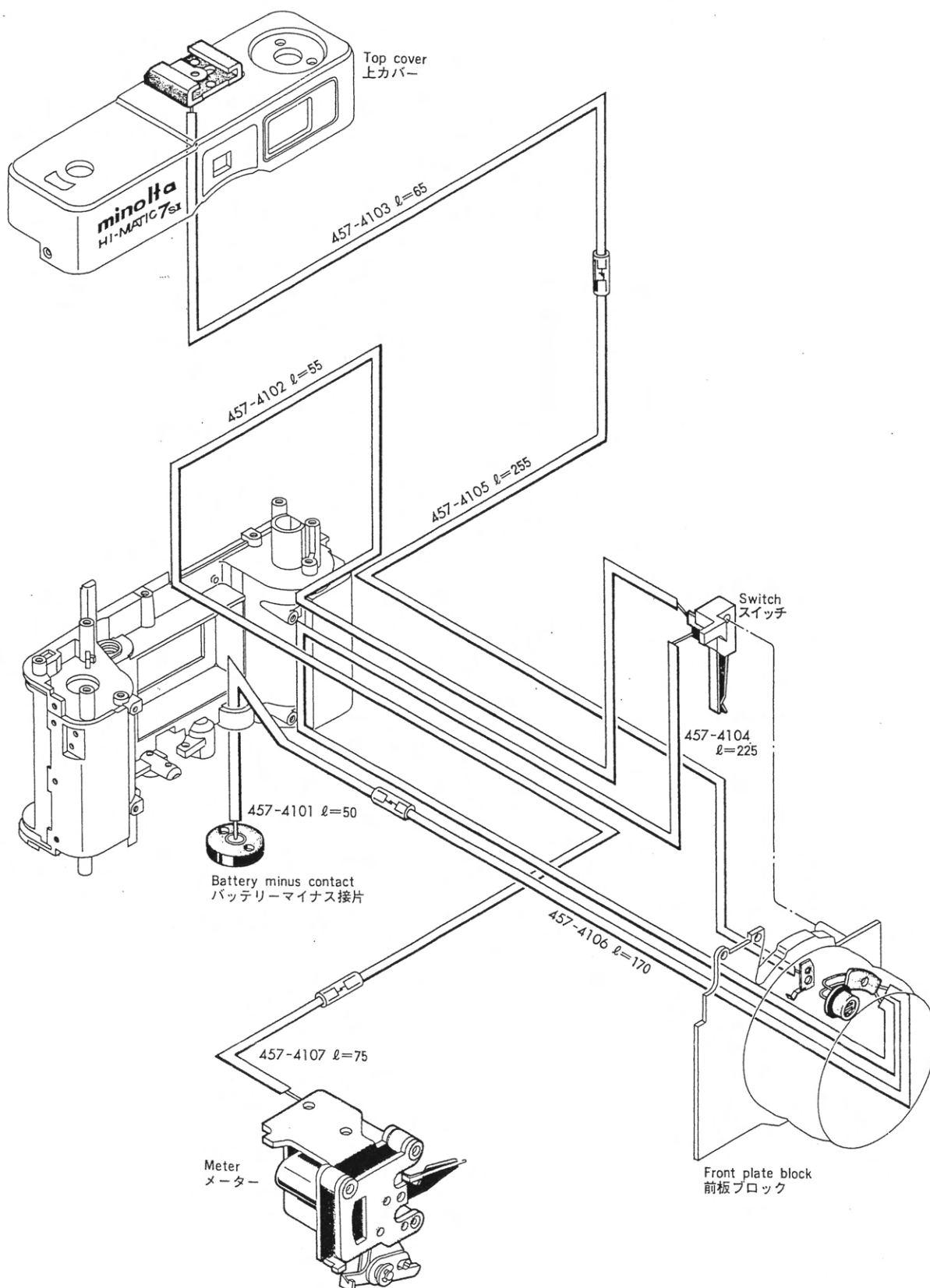
Part No.	Part Name	Qty
部品番号	部 品 名 称	員数
457-2491-01	Shutter block シャッターブロック	1
457-0728-01	Shutter mount 取付環セット	1
457-0730-01	Diaphragm operation plate set 絞り操作板セット	1
457-0731-01	B stop lever set Bストップレバーセット	1
457-0733-01	Coupling ring set 連結環セット	1
457-0734-01	EE lever axis set EEレバー軸セット	1
457-0735-01	EE lever-B set EEレバーBセット	1
457-2620-01	Diaphragm operation plate spring 絞り操作板スプリング	1
457-2621-01	Diaphragm blade 絞り羽根	5
457-2622-01	Diaphragm pressure ring 絞り押え環	1
457-2623-01	Pressure ring set screw 押え環取付ねじ	2
457-2624-01	Washer ワッシャー	1
457-2625-01	B stop lever axis Bストップレバー軸	1
457-2626-01	B stop lever spring Bストップレバースプリング	1
457-2627-01	Shutter blade シャッター羽根	8
457-2632-01	Shutter speed plate 速度板	1
457-2634-11	Stopper $\phi 1.80$ 最小ストッパー $\phi 1.80$	0~1
457-2634-21	Stopper $\phi 1.90$ 最小ストッパー $\phi 1.90$	0~1
457-2634-31	Stopper $\phi 2.00$ 最小ストッパー $\phi 2.00$	0~1
457-2634-41	Stopper $\phi 2.10$ 最小ストッパー $\phi 2.10$	0~1
457-2634-51	Stopper $\phi 2.20$ 最小ストッパー $\phi 2.20$	0~1
457-2635-01	EE lever spring EEレバースプリング	1
457-2636-01	EE lever-B set axis EEレバーBセット軸	1
457-4104-01	Lead wire-Green $\ell=225\text{mm}$ , $\phi 0.12/7$ wires: $\phi 1$ リード線 (緑)	1
457-4105-01	Lead wire-Brown $\ell=255\text{mm}$ , $\phi 0.12/7$ wires: $\phi 1$ リード線 (茶)	1
457-4106-01	Lead wire-Red $\ell=170\text{mm}$ , $\phi 0.12/7$ wires: $\phi 1$ リード線 (赤)	1
9611-1430-01	Phillips type screw 十字穴付なべ頭小ねじ	3
9611-1730-01	Phillips type screw 十字穴付なべ頭小ねじ	3
457-0737-01	Shutter speed ring set 速度環セット	1
457-2106-01	Indication plate 指標板	1
457-2638-01	ASA plate ASA板	1
457-2639-01	Filter ring 鏡頭環	1
9611-1414-01	Phillips type screw 十字穴付なべ頭小ねじ	2
9615-1425-01	Phillips type screw 十字穴付皿小ねじ	3

**MINOLTA HI-MATIC 7s II****CODE No. 457**

Part No.	Part Name	Qty
部品番号	部 品 名 称	員数
457-0721-01	Base plate set 台板セット	1
457-0722-01	Operation ring set 開閉リングセット	1
457-0723-01	Tension lever set テンションレバーセット	1
457-0724-01	Release lever set レリーズレバーセット	1
457-0725-01	B lever set Bレバーセット	1
457-0726-01	X contact-B set X接片Bセット	1
457-0727-01	Slow governor set スローガバナーセット	1
457-0732-01	Click lever set クリックレバーセット	1
457-2601-01	Tension stopper テンションストッパー	1
457-2602-01	Operation ring spring 開閉リングスプリング	1
457-2603-01	Operation ring stopper 開閉リングストッパー	1
457-2604-01	Operation ring stopper set screw 開閉リングストッパー取付ねじ	1
457-2605-01	Tension lever spring テンションレバースプリング	1
457-2606-01	Tension lever set axis テンションレバーセット軸	1
457-2607-01	Release lever spring レリーズレバースプリング	1
457-2608-01	Release axis collar レリーズ軸カラー	1
457-2610-01	Washer ワッシャー	1
457-2611-01	Pressure nut レリーズレバー押えナット	1
457-2612-01	B lever spring Bレバースプリング	1
457-2613-01	Isolation seat 絶縁座	1
457-2614-01	Isolation washer 絶縁ワッシャー	1
457-2615-01	X contact set screw X接片取付ねじ	1
457-2616-01	X contact-A X接片A	1
457-2617-01	Slow governor set screw-A スローガバナー取付ねじA	1
457-2619-01	Tension stopper set screw テンションストッパー取付ねじ	1
457-2630-01	Click lever spring クリックレバースプリング	1
457-2631-01	E-ring E-リング	1
9601-1223-01	Screw 平小ねじ	1

# Wiring Schematic Diagram

## 実体配線図








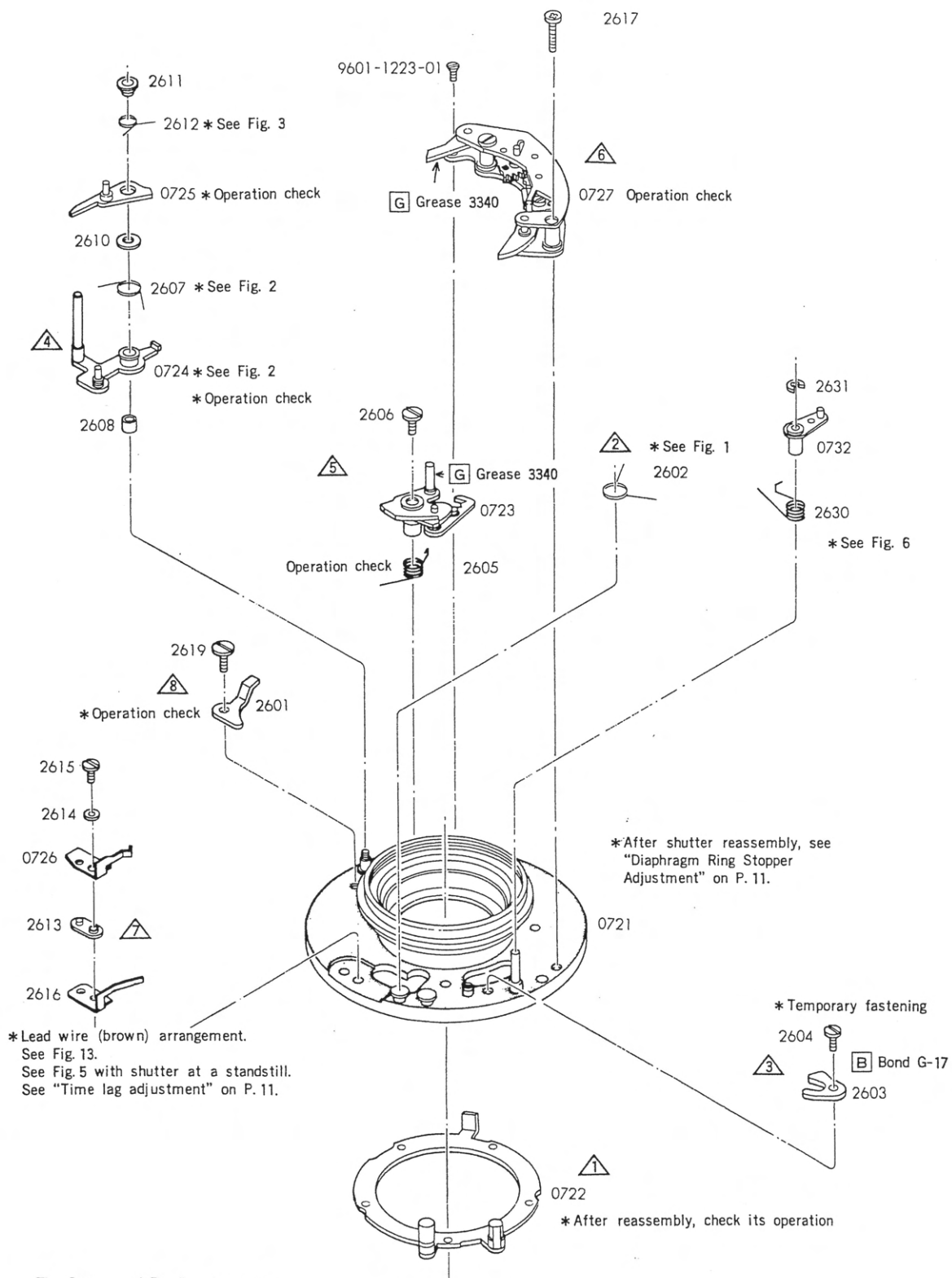
# Disassembly, Reassembly and Adjustment

Table of Contents	Page
1. Reassembling the Shutter- 1 .....	1 ~ 2
2. Reassembling the Shutter- 2 .....	3 ~ 4
3. Reassembling the Lens Mount .....	5 ~ 6
4. Reassembling the Shutter, Lens Mount, Meter and Self-Gear .....	7 ~ 10
5. Adjusting the Shutter	
(Diaphragm ring stopper adjustment).....	11~12
(Time lag adjustment) .....	11~12
(Aperture adjustment) .....	11~12
(Slow gear-clutch lever pin adjustment) .....	13
(Shutter speed check) .....	14
6. Reassembling the Lens Mount into the Body .....	15
(Rangefinder reassembly).....	16
(Focus adjustment).....	17
(Rangefinder adjustment).....	18
(EF and needle adjustments) .....	19~20
7. Indicates the Place of Grease and Bonding agent to be applied .....	21~24

## Operating Figure for Camera Disassembly, Reassembly and Adjustment.

- Follow the camera disassembly, reassembly and adjustment operations exactly in the sequence based upon the parts expansion plan.
- The expansion plan bears the marks and notes, which represent the following:
  -  : For reassembly, follow the sequence of number in the triangle, and for disassembly, reverse the order.
  - \* : Describes the places requiring general precautions when disassembling or reassembling the camera.
  -  : Indicates the places of "Grease", an accessory, to be applied.
  -  : Indicates the places of "Bonding Agent", an accessory, to be applied.
- For adjusting, an explanation is made in the sequence in which each block reassembly is done.

# 1. Reassembling the Shutter-1



## The Grease and Bonding Agent List

- [B]** : Bond G-17  
 : Pliobond (Solution by methyl-ethyl-keton)  
 : Screw lock 3M  
 : Aron Alpha No. 201  
 : Loctite 242

- [G]** : Grease 335  
 : Grease 3340  
 : Permalub F2

Fig. 1

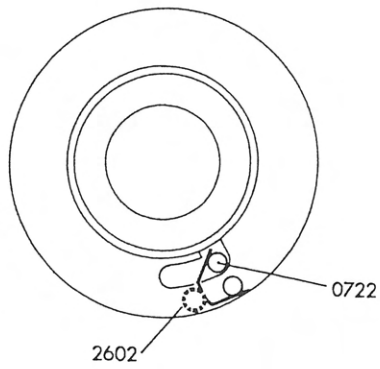


Fig. 2

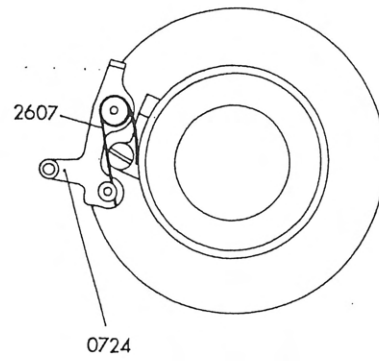


Fig. 3

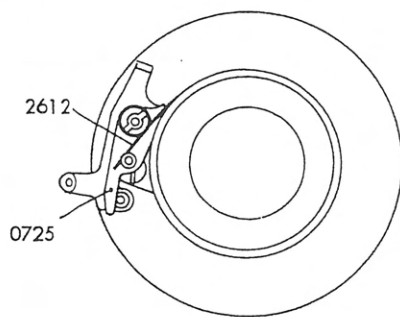


Fig. 4

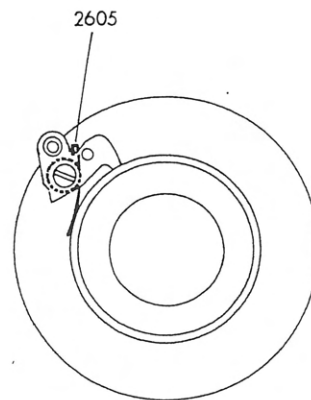


Fig. 5

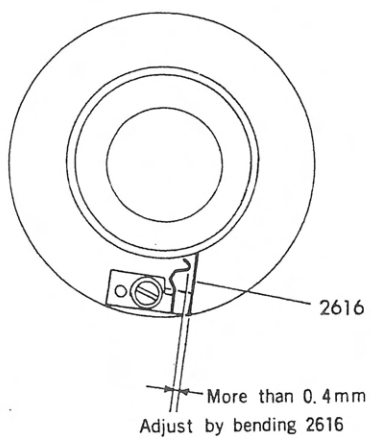
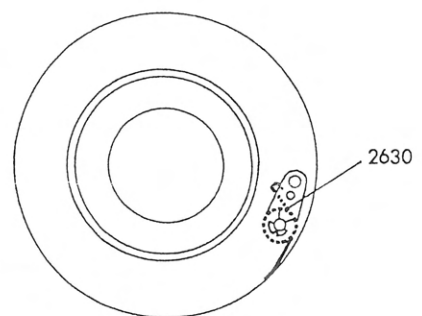


Fig. 6



## 2. Reassembling the Shutter-2

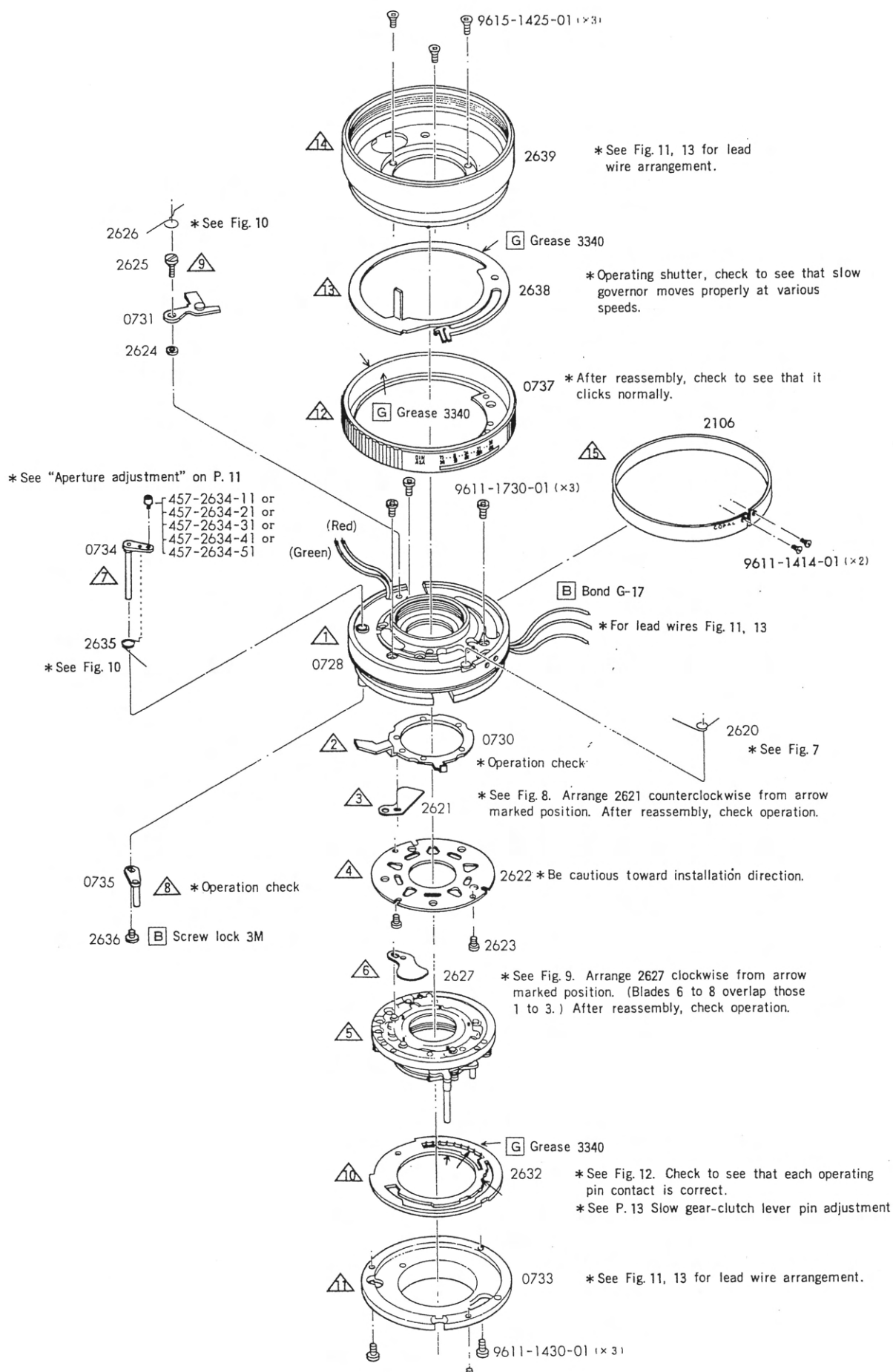


Fig. 7

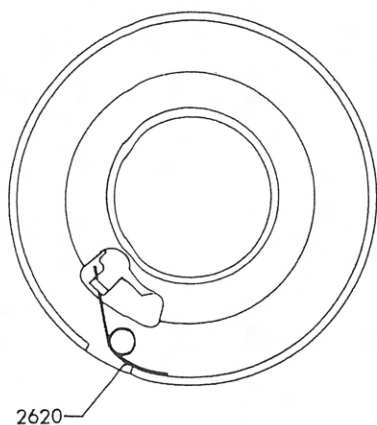


Fig. 8

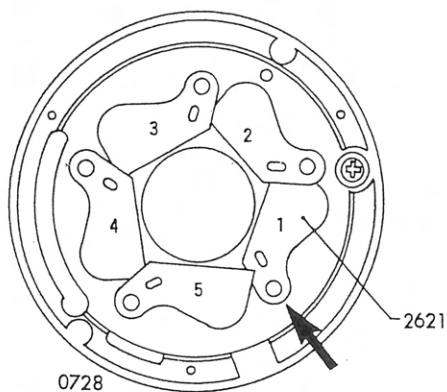


Fig. 9

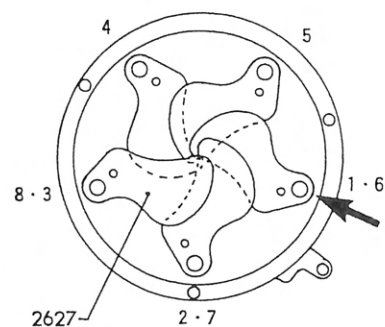


Fig. 10

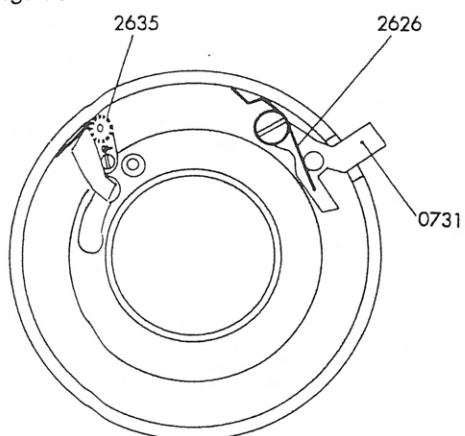


Fig. 11

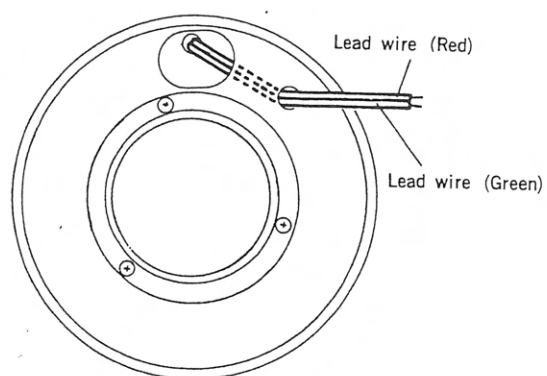


Fig. 12

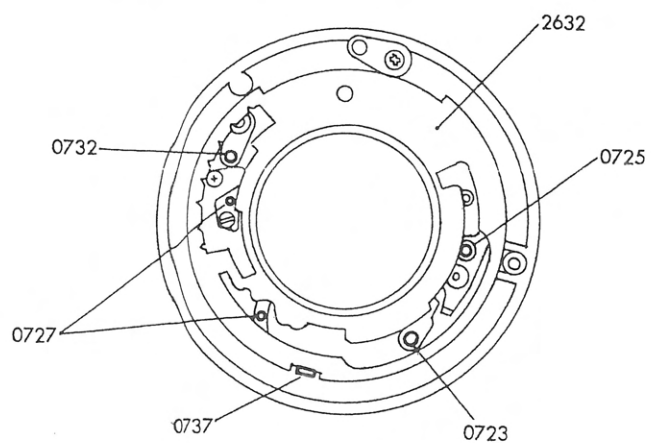
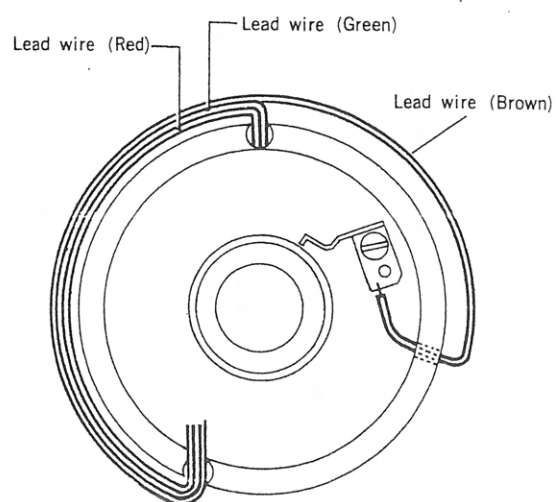


Fig. 13



### 3. Reassembling the Lens Mount

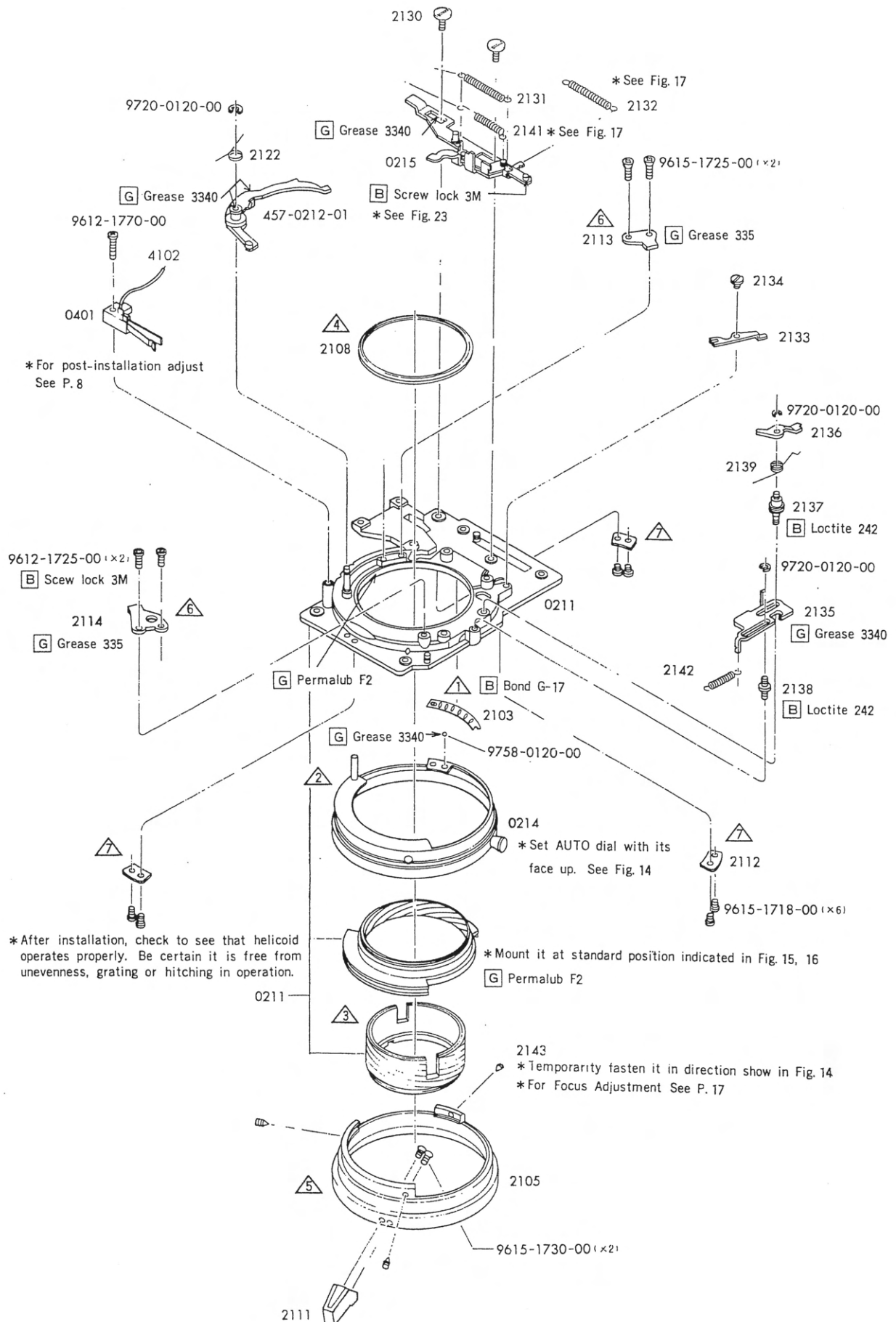


Fig. 14

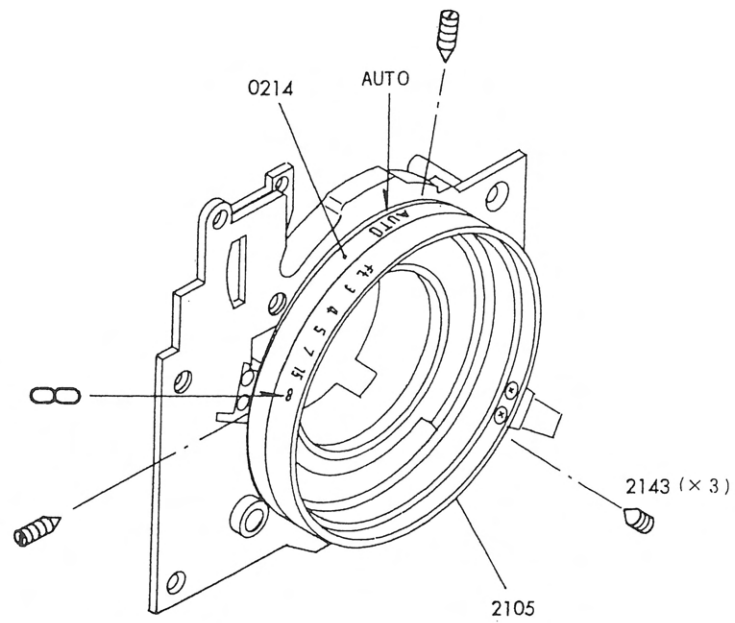


Fig. 15

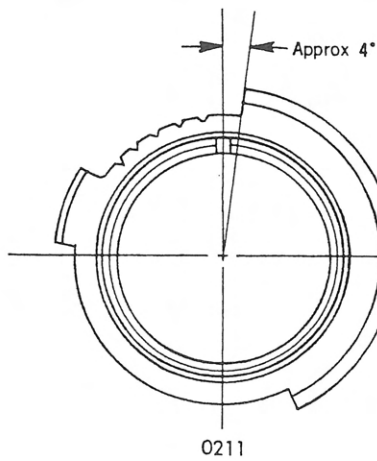


Fig. 16

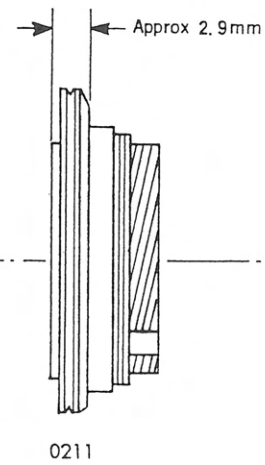
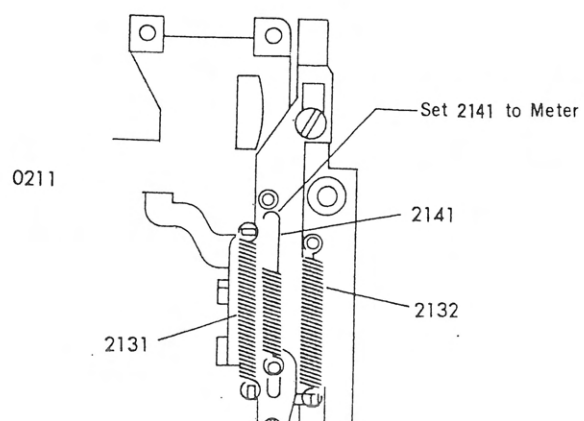
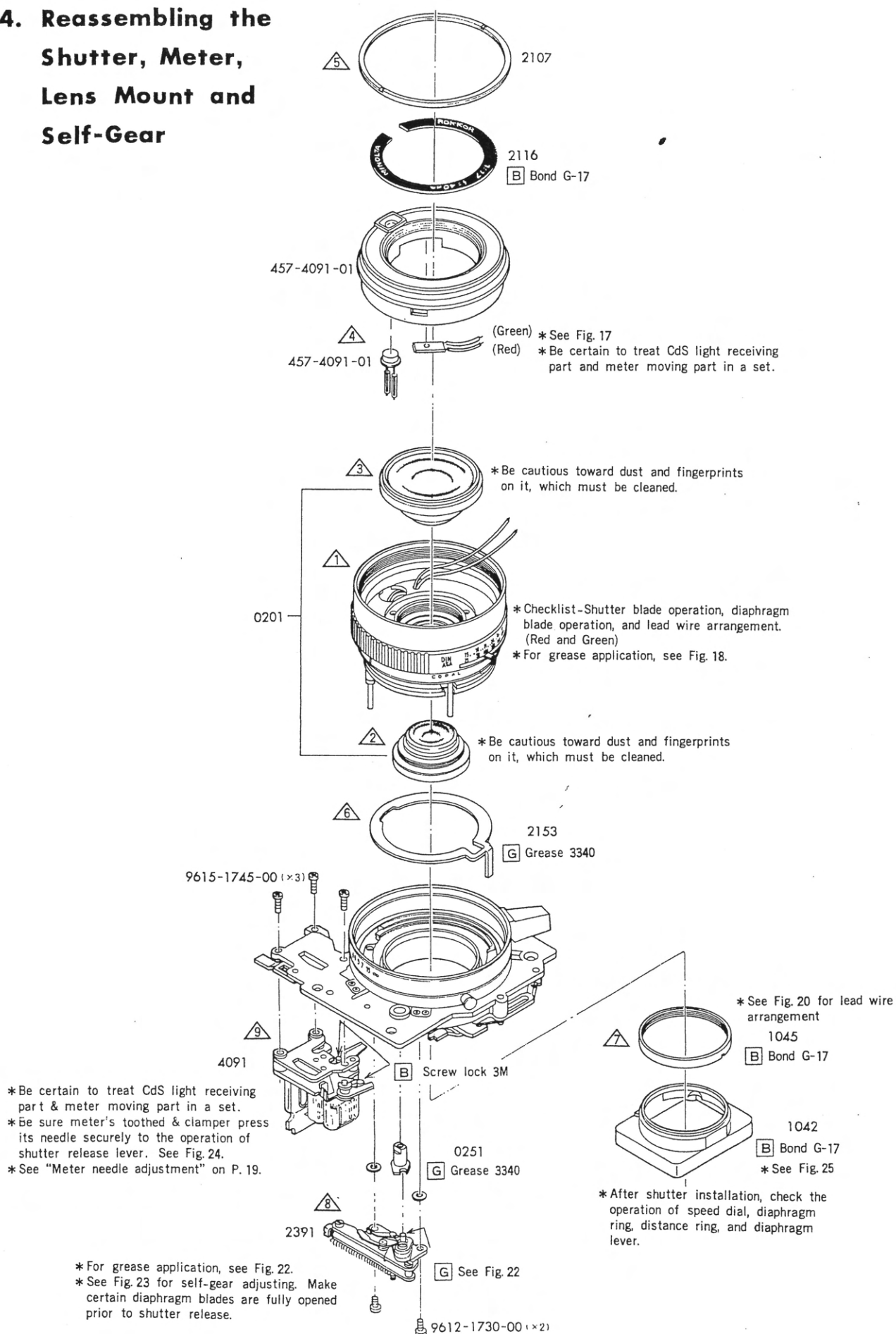


Fig. 17



#### 4. Reassembling the Shutter, Meter, Lens Mount and Self-Gear





◆ M Switch (0401) Adjustment. See Fig. 21.

Turning the diaphragm ring, make certain that the contacts become ON at AUTO position to which it is set. They are out of contact at any manual aperture setting, with a clearance of 0.3mm to 0.5mm in between:

Fig. 18

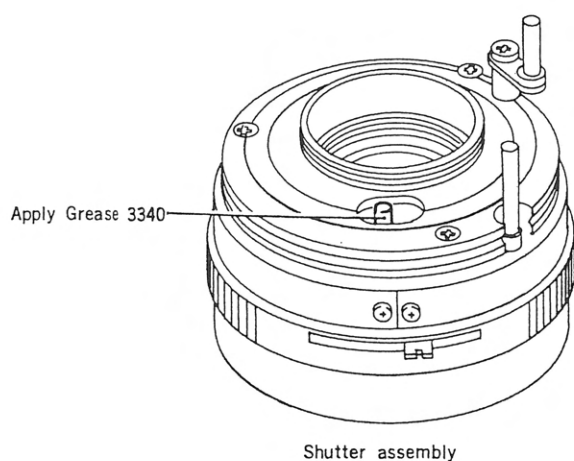


Fig. 19

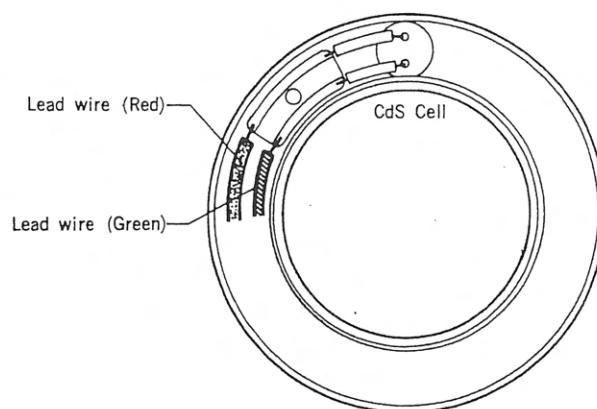


Fig. 20

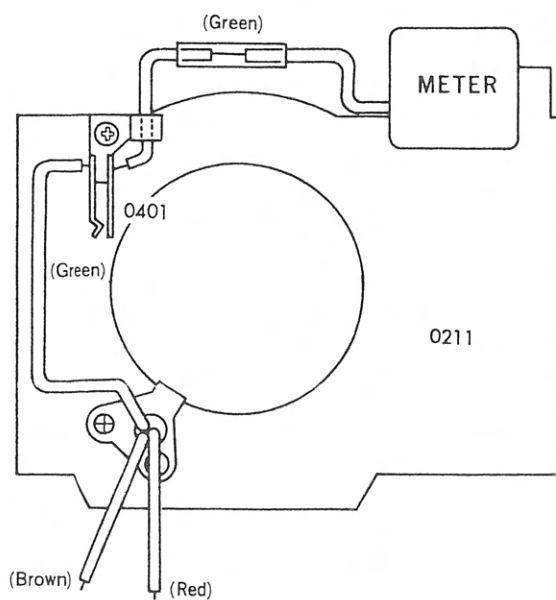
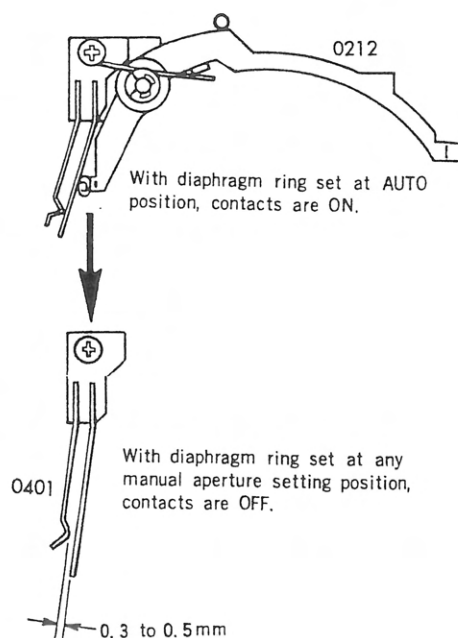


Fig. 21



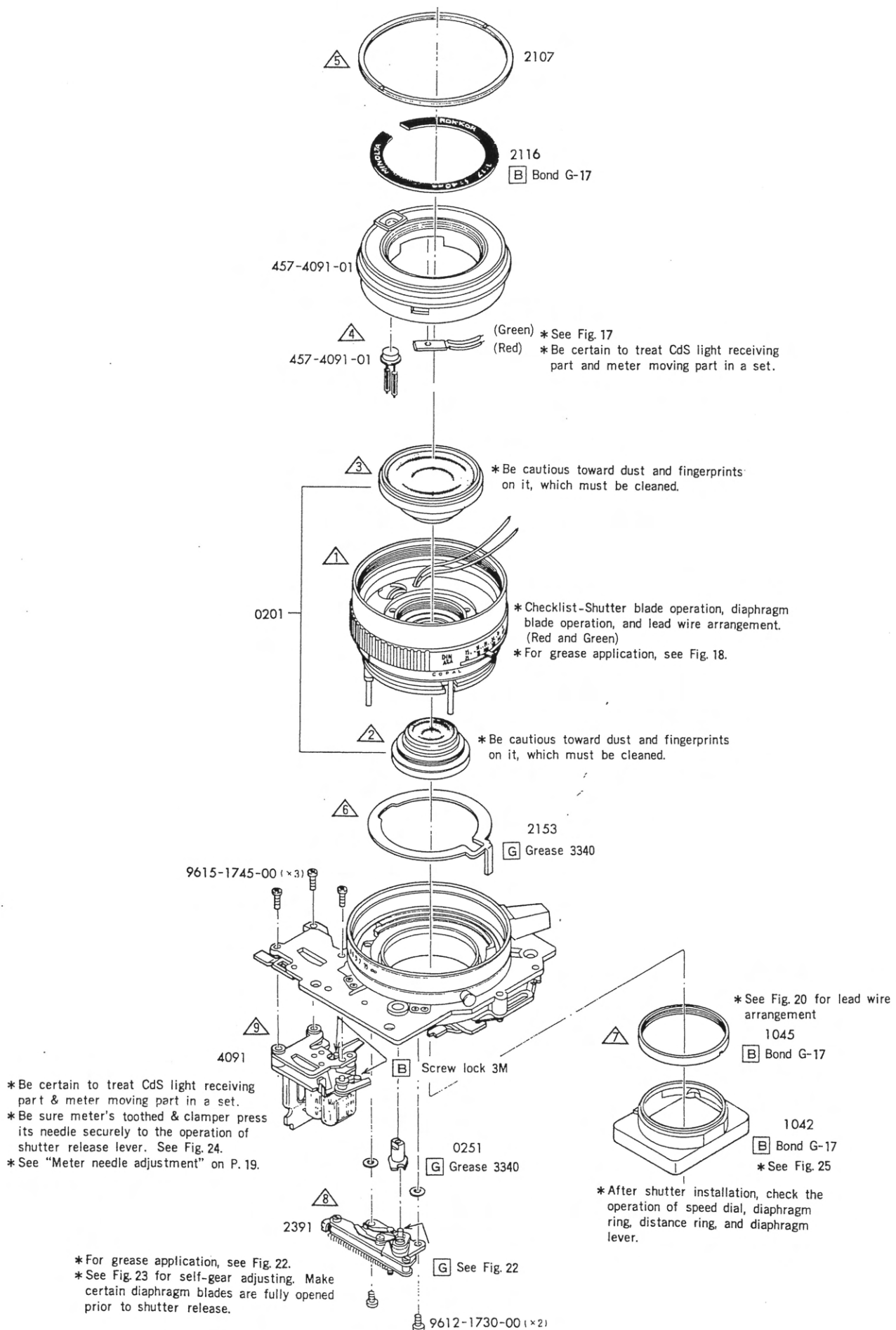


Fig. 22

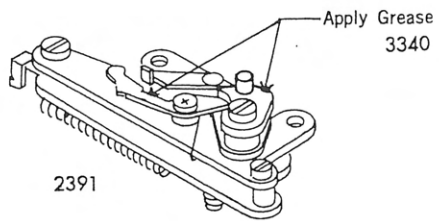


Fig. 23

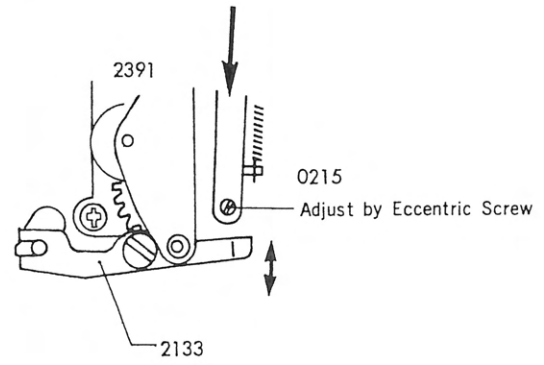


Fig. 24

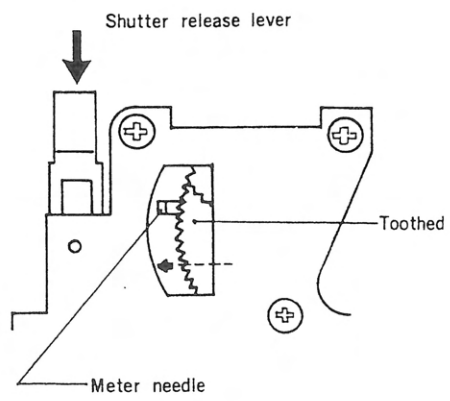
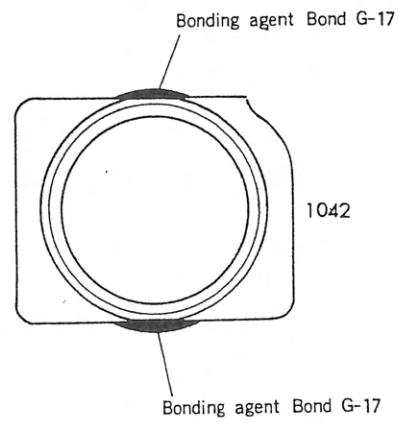



Fig. 25



## 5. Adjusting the Shutter


### ◆ Diaphragm Ring Stopper (2603) Adjustment

See "Reassembling the Shutter-1"  on page.1.

\*With the shutter set at "B" (opening-up), slowly operate tension lever (0723) to adjust the clearance in Fig.26 to be 0.05mm to 0.2mm using eccentric screw.

After adjusting 2604 screw lock.

### ◆ Time Lag Adjustment

See "Reassembling the Shutter-1"  on page.1.

\*Preparation Measuring instrument and Circuit Tester.


\*Releasing the shutter allows diaphragm ring (0722) to move in the direction as indicated with an arrow in Fig.27 to push 2616 (contact A) bringing it in touch with 0726 (contact B). Slowly operating tension lever (0723), adjust by bending 0726 (contact B) so that the contact occurs when the shutter blades are opened 80% or to the full. Use the circuit tester for the above adjustment to check the timing (conductivity) of the contact.

※How to Check Time Lag (Synchronization) with a Finished Camera

\*With an electronic flash attached to the camera, release the shutter to flash light against a sheet of white paper.

\*Opening the camera's back cover, check the synchronization of flash by seeing it through the film.

### ◆ Aperture Adjustment

See "Reassembling the Shutter-2"  on page.3.

\*Dismounting the lens group from the shutter and body reassembled, check the minimum aperture at f16. Make accurate measurements by reference to Fig.28.

\*Aperture adjusting screw (2634) is provided in the following sizes:

When the measured aperture is smaller in diameter than the standard value (1.61mm), select a screw smaller than that set in place for replacement.

When it is larger in diameter than the standard value, select a screw larger than the set one for replacement.

※The screw of 2.00 mm in outer diameter is preset as a standard for the standard value (1.61mm).

\*Adjusting the minimum aperture permits an automatic aperture determination at f1.7 (opening-up) to f11.

Table- 1

Outer Diameter	Parts Code No.
1.80 mm	2634-11
1.90 mm	2634-21
2.00 mm	2634-31
2.10 mm	2634-41
2.20 mm	2634-51

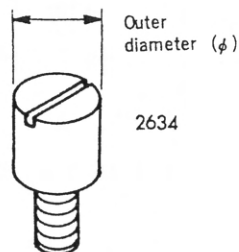


Fig. 26

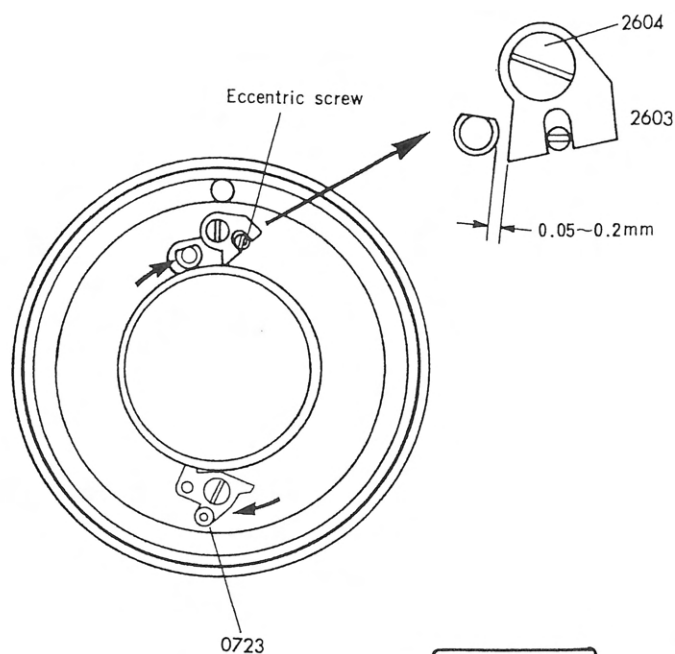


Fig. 27

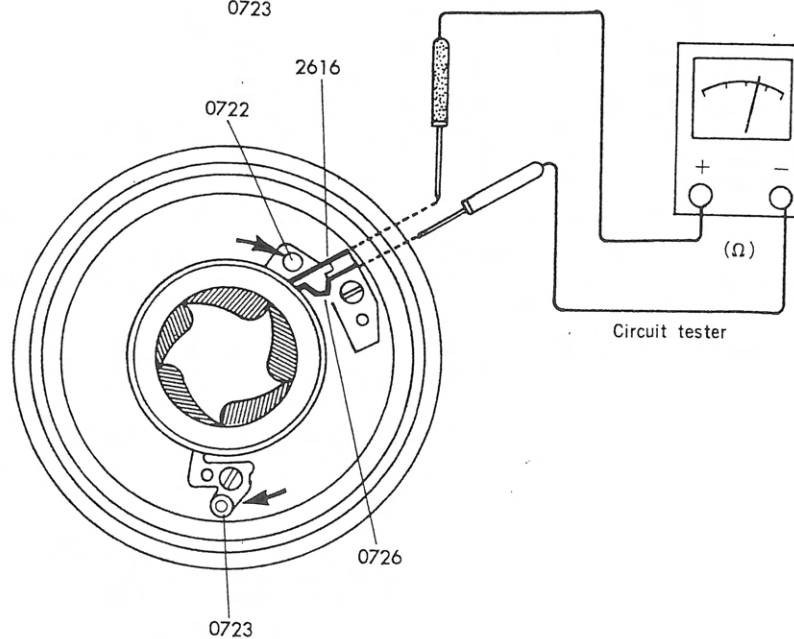
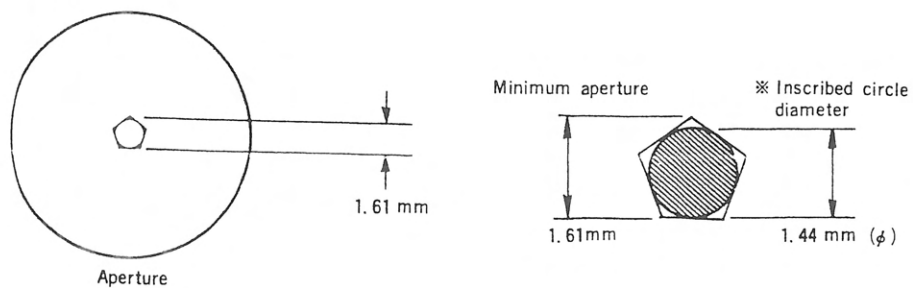



Fig. 28



\*Minimum aperture the standard value 1.61 mm (ranges from  $\pm 2/3$  EV. 2.03 mm to 1.28 mm)  
Measure it with an instrument like slide calipers.

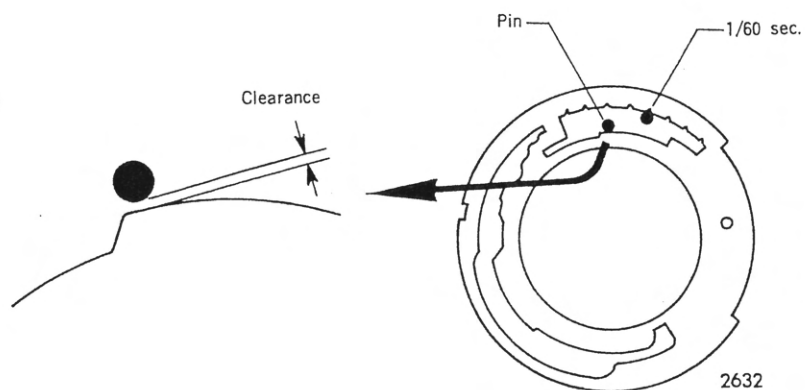
※For measuring the inscribed circle of the minimum aperture the standard value (1.44 mm  $\phi$ ), use a form prepared to read 1.44 mm ( $\phi$ ). Range from  $\pm 2/3$  EV. 1.81 mm to 1.14 mm ( $\phi$ ).

### ◆ Slow Gear Clutch Lever Pin Adjustment

See "Reassembling the Shutter-2"  on page.3.

\*After reassembling dial (2632), make certain that there is no clearance between the dial and the pin contact position at shutter settings of  $1/60$  through  $1/500$ . In case there is a clearance, make an adjustment by bending the lever pin. To avoid an excess in bending, check the clearance by turning the dial to the shutter setting range of  $1/30$  to  $1/60$ .

Fig. 29



## For Reference

### ◆ Shutter Speed Check

\*Preparation Measuring instrument (Lens shutter tester)

The camera is reset from AUTO to f1.7 to open up the lens. (When a measurement is taken on the shutter as a single block, dismount the lens group.)

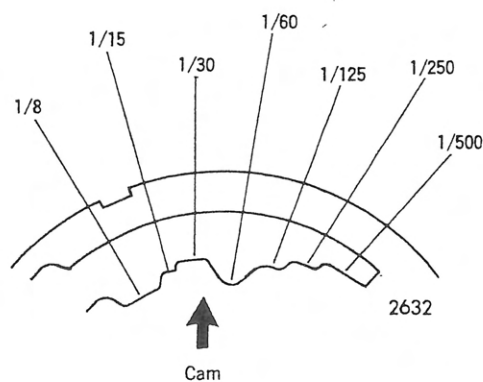
\*In case the shutter speed is fast, file the cam of dial (2632) with which the slow gear governor pin comes in contact, as shown in Fig.30.

\*In case the shutter speed is slow, chisel the dial cam to stretch.

Table- 2

Exposure Time	Allowable Discrepancy (EV)	Allowable Discrepancy (ms)
1/8 sec.	$\pm 0.5$ EV	88.4 ~ 177 ms
1/15 sec.	"	44.2 ~ 88.4
1/30 sec.	"	22.1 ~ 44.2
1/60 sec.	"	11.0 ~ 22.1
1/125 sec.	$\pm 0.75$ EV	4.65 ~ 13.1
1/250 sec.	"	2.32 ~ 6.57
1/500 sec.	"	1.16 ~ 3.28

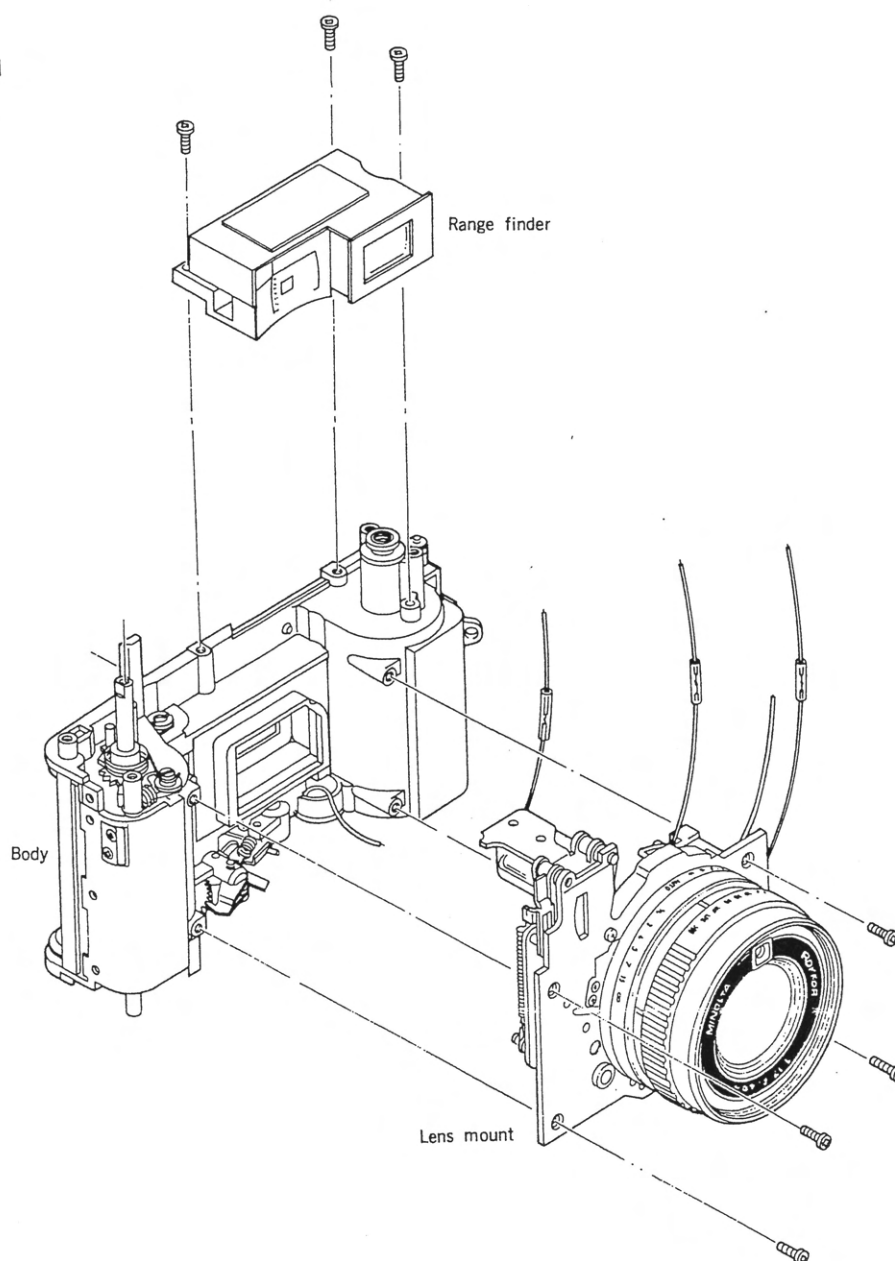
Fig. 30



## 6. Reassembling the Lens Mount into the Body

- \*When reassembling the lens mount into the body, check the following:  
Shutter operation, helicoid operation, diaphragm operation, light shield frame firmly secured in place, excess in bonding agent application, and meter needle movement.  
Arrange lead wires (brown and green) as shown in Fig. 32.
- \*Be sure to discharge the shutter prior to its reassembly into the body.
- \*See Fig. 34 for the shutter charging mechanism.
- \*Post-into-body reassembly checklist  
Make sure that the shutter is completely set in place. Be certain there is room after completion of charging. See Fig. 33 for lead wire (red) arrangement. Check to see that levers (3049, 3050 and 2136) operate properly, referring to Fig. 34.

Fig. 31





## ◆ Rangefinder Reassembly

- \*Use great care when handling optical glasses. They require cleaning.
- \*Apply Grease 3340 to the operating pin.
- \*With the distance scale ring set at its short range position, reassemble the range-finder block into the body.

Fig. 32

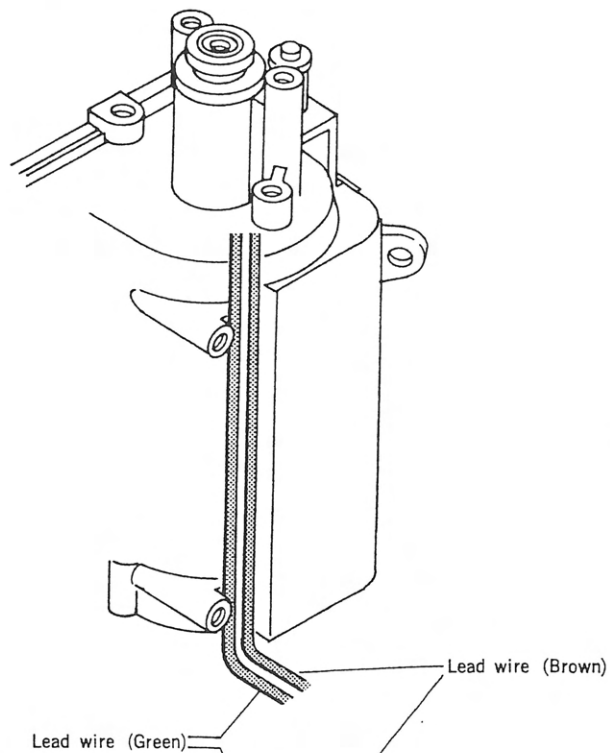


Fig. 33

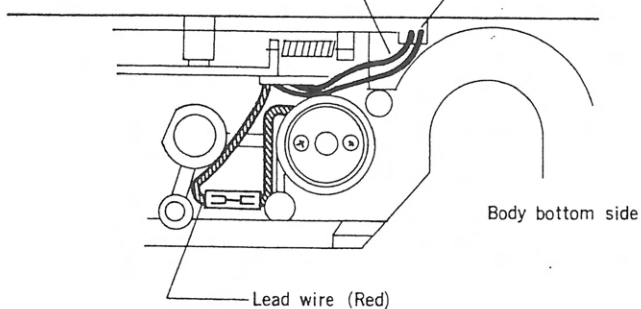
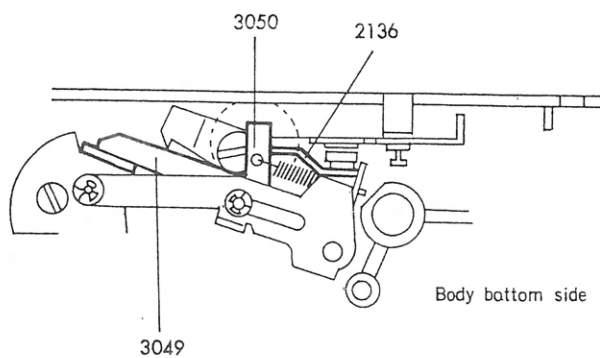


Fig. 34



## ◆ Focus Adjustment

### \*Preparation

Set the distance scale ring at infinity (marked with  $\infty$ ).

Set the aperture at f1.7 (opening-up).

Shutter speed at "B" (opening-up).

Measuring instrument Collimator (Focusing screen).

\*With the focusing screen applied to the camera's film plane, place the camera to face the collimator. See Fig. 35.

\*Unfasten 2143 ( $\times 3$ ) temporarily fastened as shown in Fig. 36 at the position where the chart image from the collimator is sharply seen on the focusing screen. Then change the thrust of the lens helicoid, and finally fasten the three 2143s.

\*Uniformly fasten the 2143s in the order of number, ①  $\rightarrow$  ②  $\rightarrow$  ③.

Fig. 35

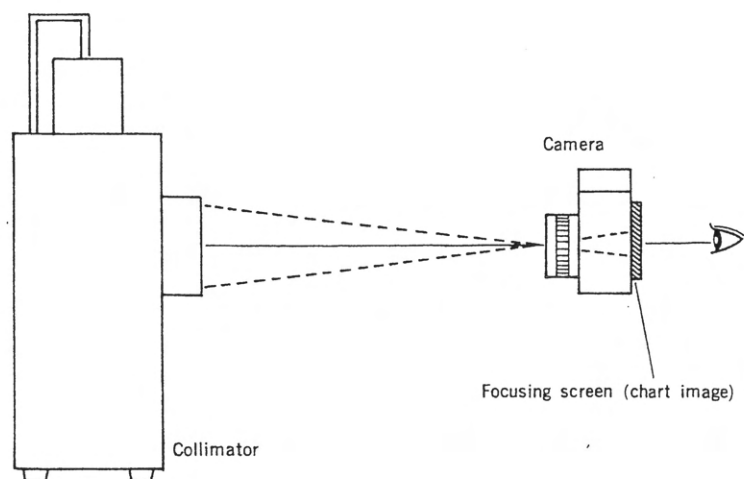
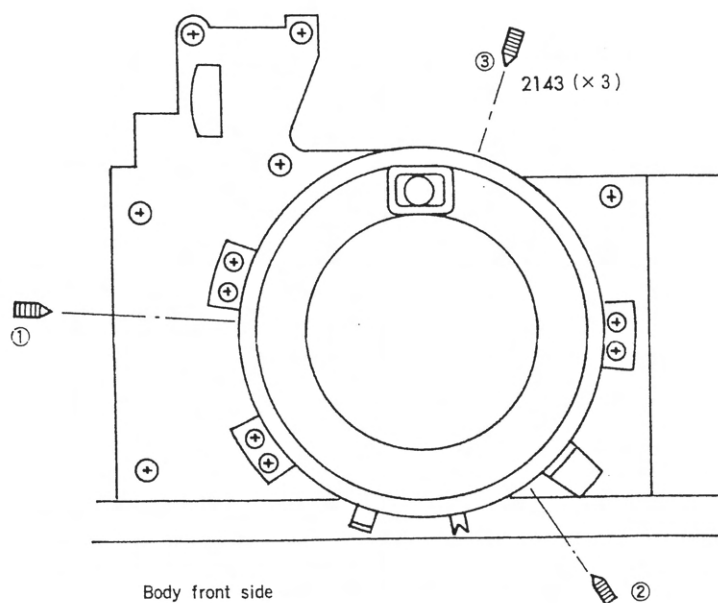


Fig. 36



## ◆ Rangefinder Adjustment

- \*Preparation Measuring instrument Collimator
- \*To adjust the distortion of a vertical image, use the adjusting screw, as indicated in Fig. 38.
- \*To adjust the distortion of a horizontal image, use the rangefinder built-in screw (5023), as shown in Fig. 39.
- \*Placing the rangefinder to face the collimator, correct the distorted image at infinity ( $\infty$ ) setting of the distance scale ring. Turning the distance ring 2 to 3 times in the  $\infty$  to 0.9m range, check a correct image.
- \*After adjusting, apply bonding agent "Screw lock 3M" to the adjusting screw.

Fig. 37

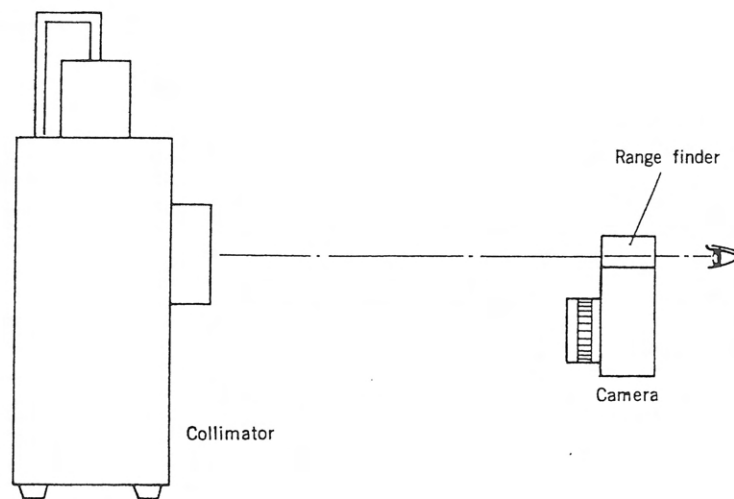


Fig. 38

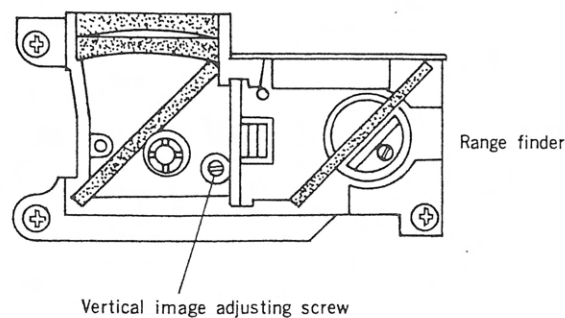
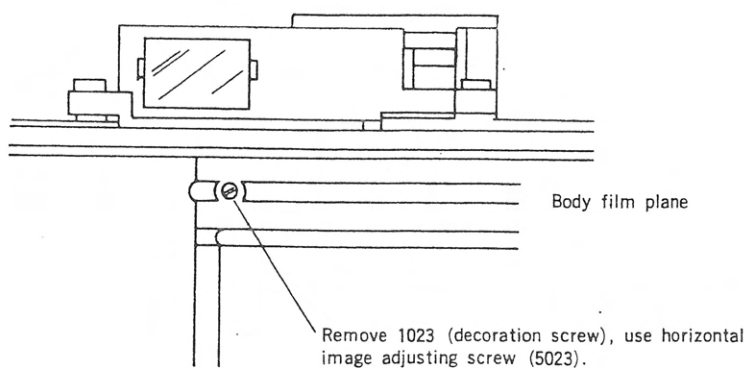


Fig. 39



## ◆ EE and Needle Adjustments

### \*Preparation

- Measuring instruments : Luminescence Box  
: EE Tester
- Setting the camera : A new battery is utilized.  
: Diaphragm ring is set at AUTO position.
- Diaphragm blades are preadjusted to fully open up:  
With the camera set at ASA 100 and shutter speed of 1/125 second, the diaphragm blades open to the full on releasing the shutter, as illustrated in Fig.40. For this adjustment, use the eccentric screw. After adjusting, apply bonding agent "Screw lock 3M" to the screw.  
Post-Adjustment Checklist: Check to see that the diaphragm blades are fully opened when releasing the shutter.

### \*EE Adjustment

- Set the EE tester at ASA 100 and  $K=1.3$ .
- Make adjustment with the meter's variable resistor so that the values listed below are achieved. See Fig.41.

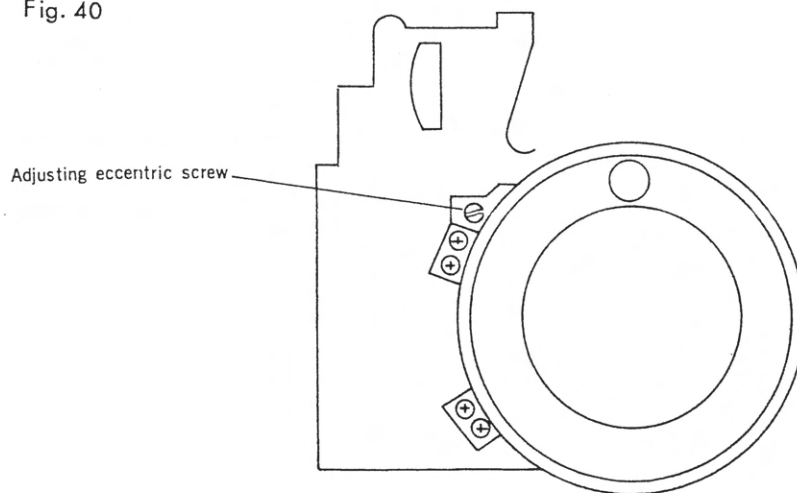
Table- 3

EV number	EV 15	EV 11	EV 9
Shutter speed	1/125 sec.	1/60 sec.	1/125 sec.
Indication	+1.4 EV - 0.6 EV	$\pm 1$ EV	$\pm 1$ EV
F. needle indication	F 16	F 5.6	F 2

### \*Needle Reading Position Adjustment

- Place the camera to face the Luminescence Box.
- Using the eccentric screw indicated in Fig.43, make adjustment so that the under exposure warning zone mark in the viewfinder is positioned as indicated in Fig.42.
- Make certain that the needle reading position in the viewfinder is in the range indicated in Fig.44 so as to satisfy apertures F 16, F 5.6 and F 2.
- To correct the needle position, adjust by bending the needle while the shutter release remains depressed.

Fig. 40



Body front side

Fig. 41

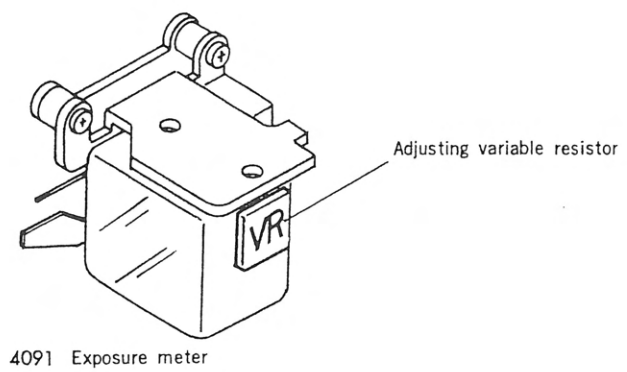


Fig. 42

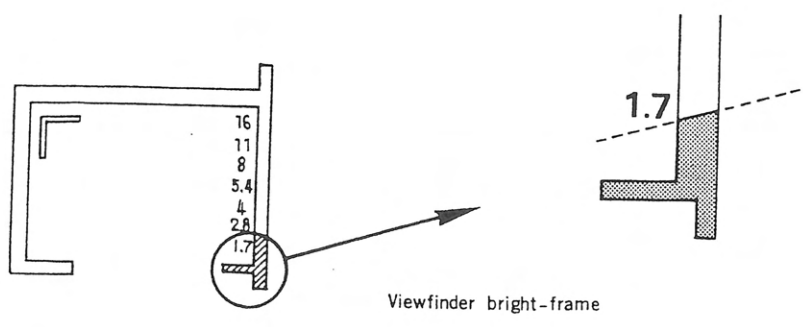


Fig. 43

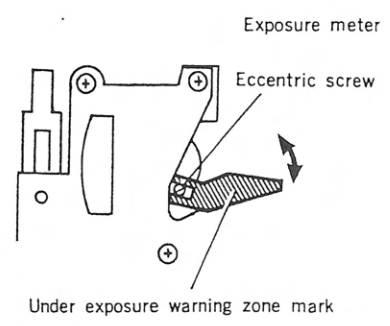
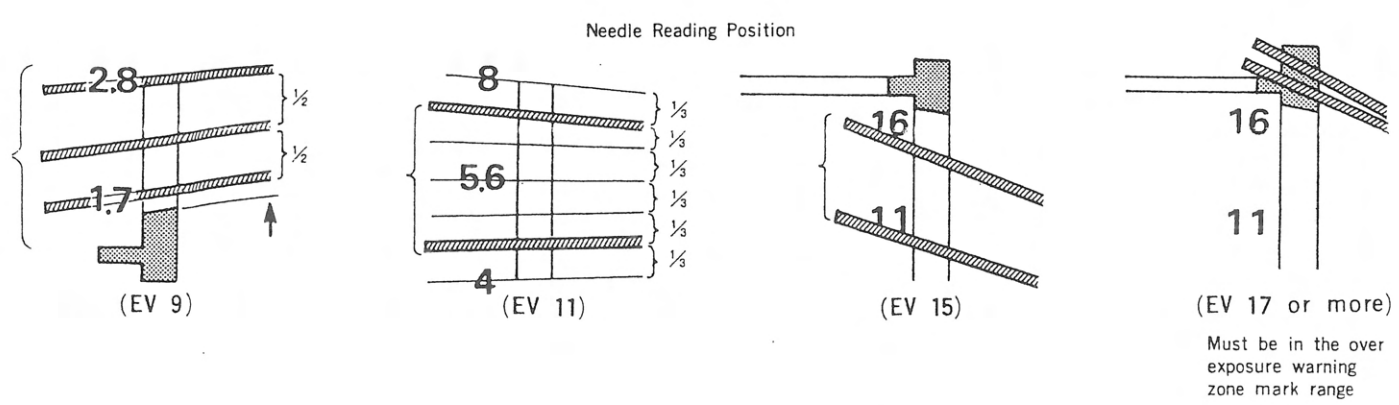


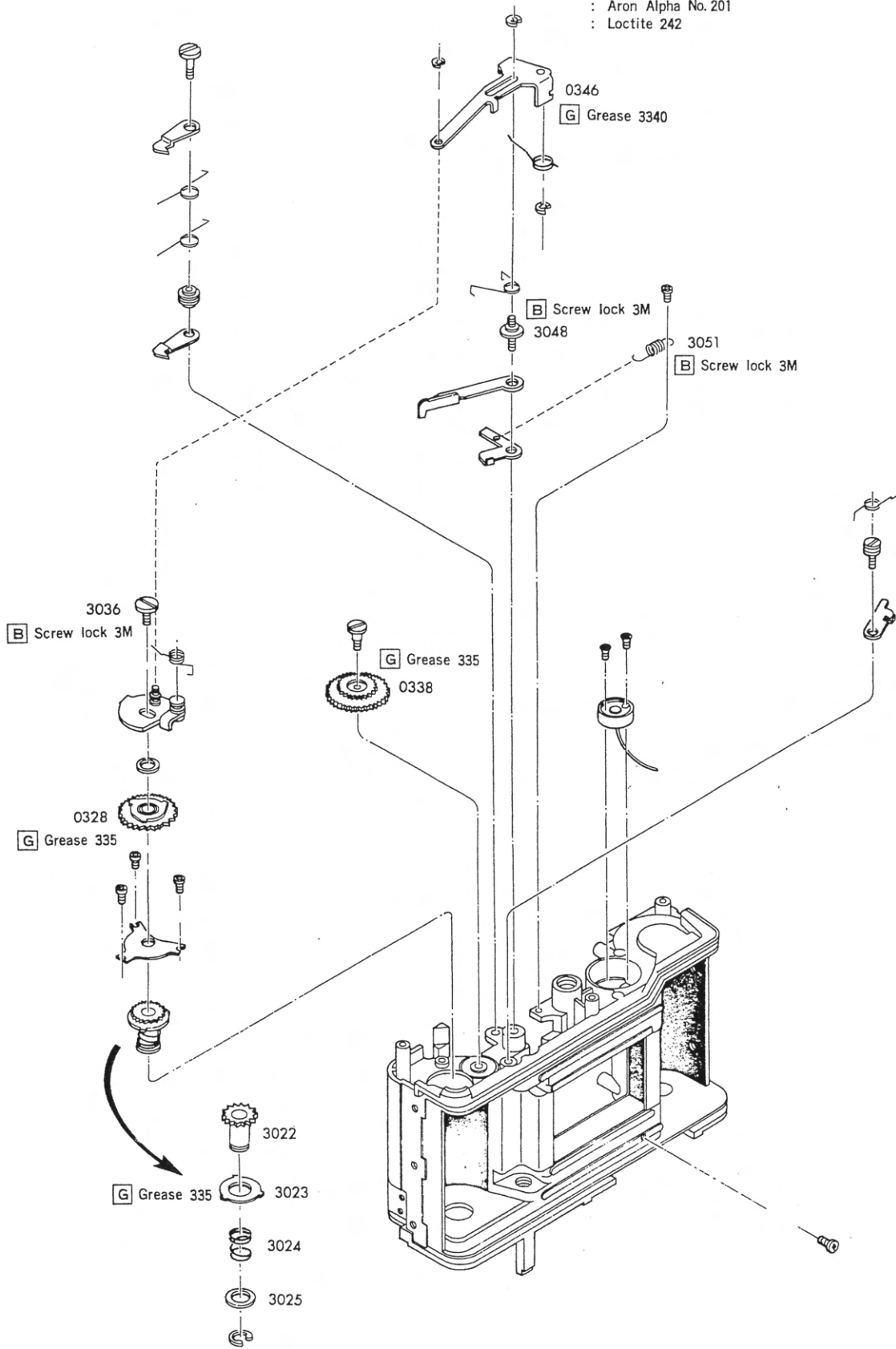
Fig. 44

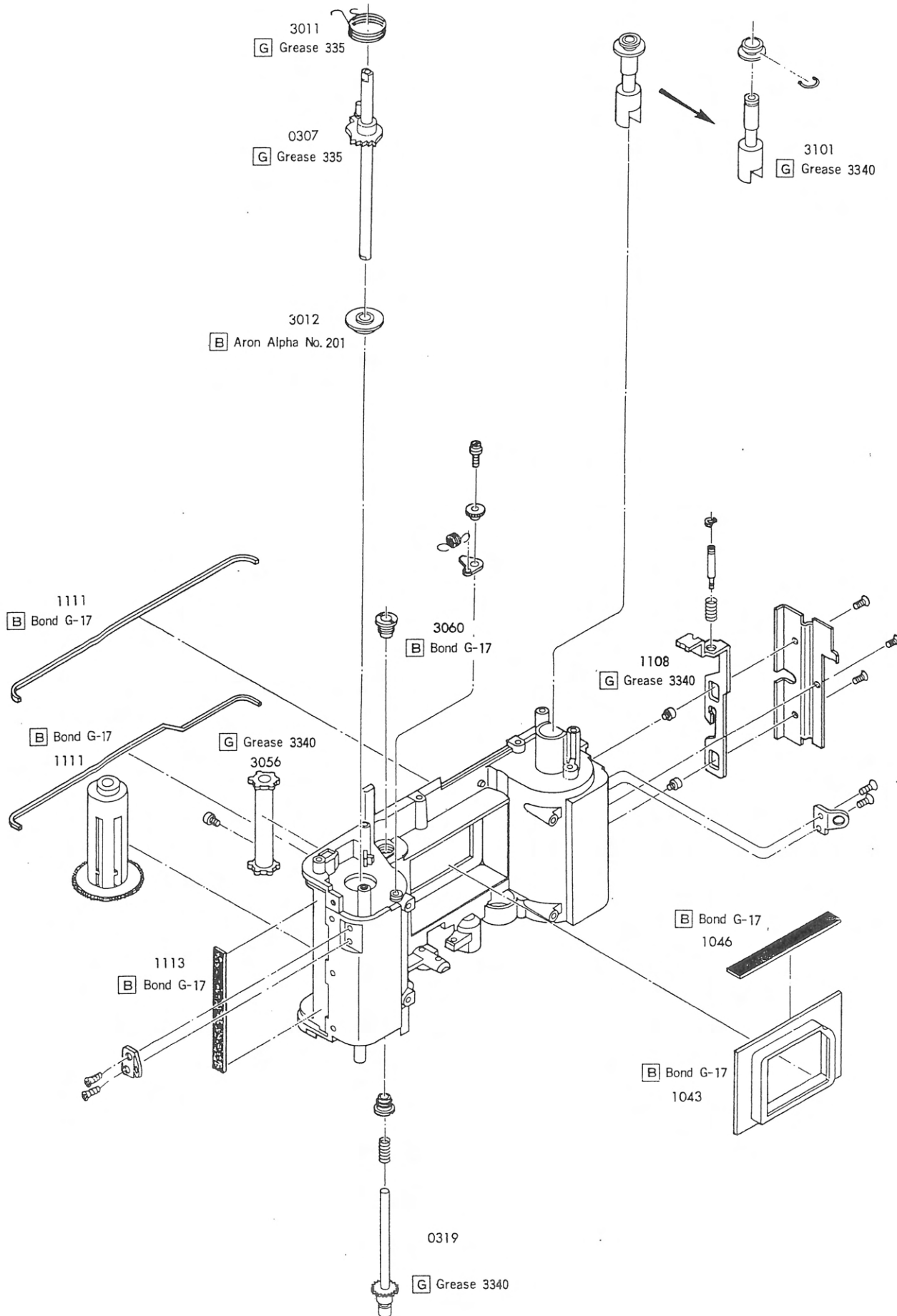


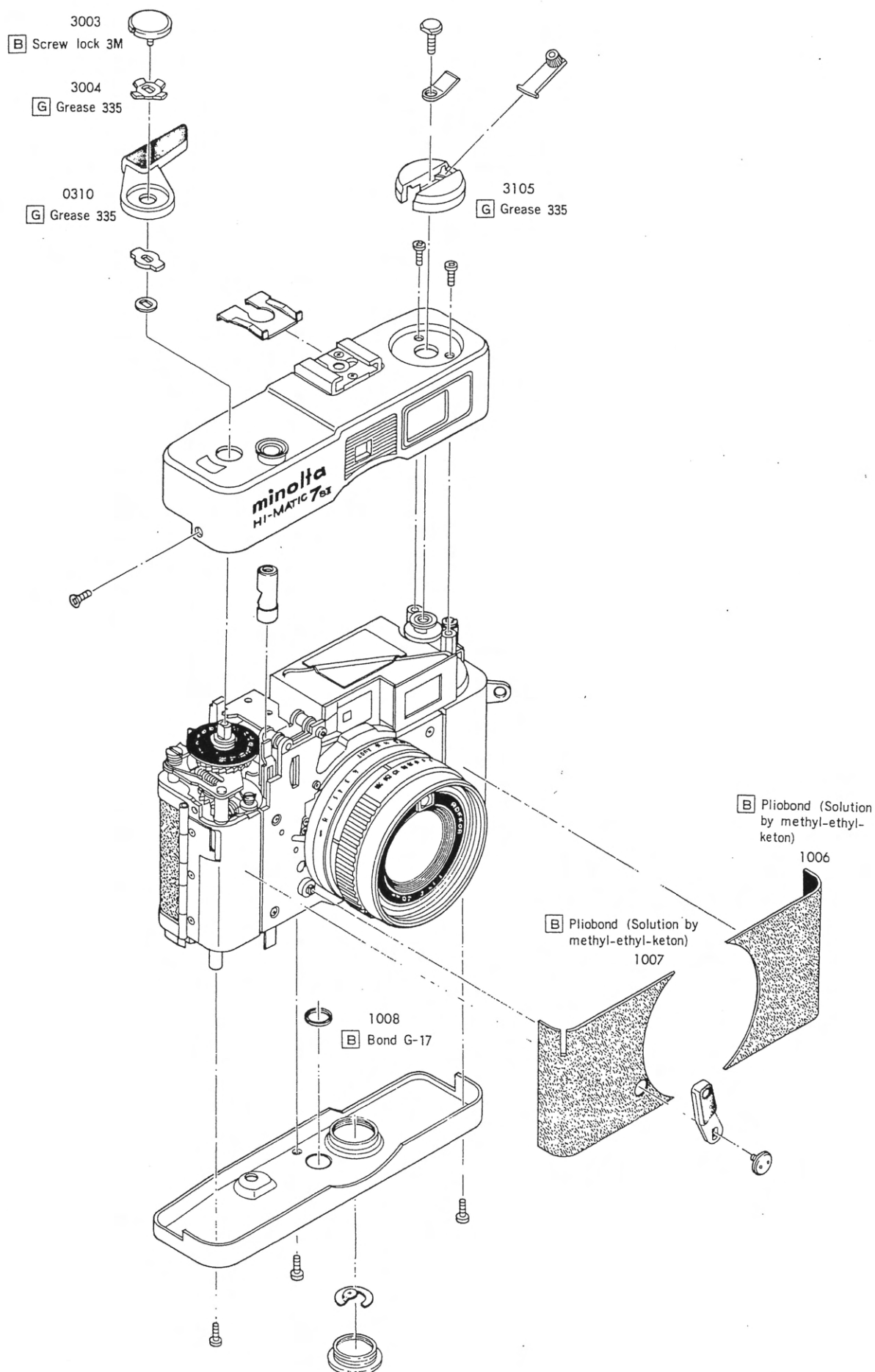
## 7. Indicates the place of Grease and Bonding agent to be applied

### The Grease and Bonding Agent List

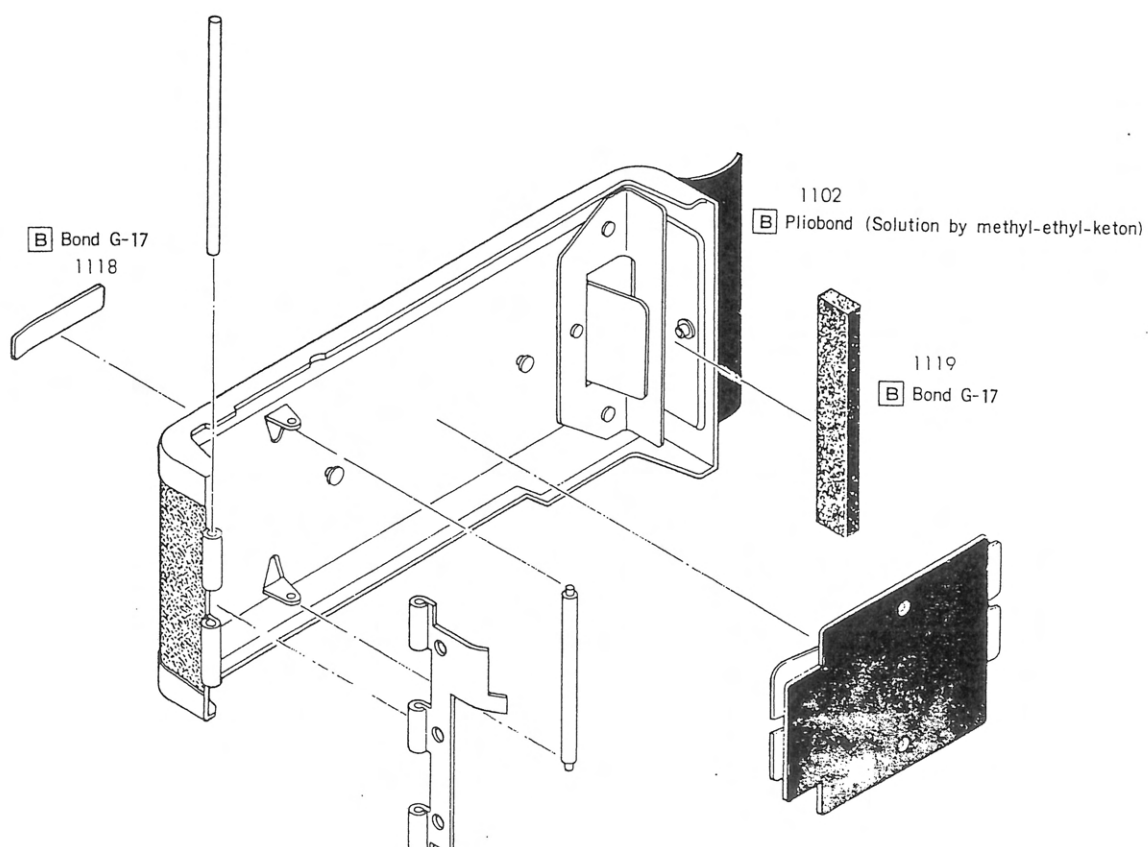
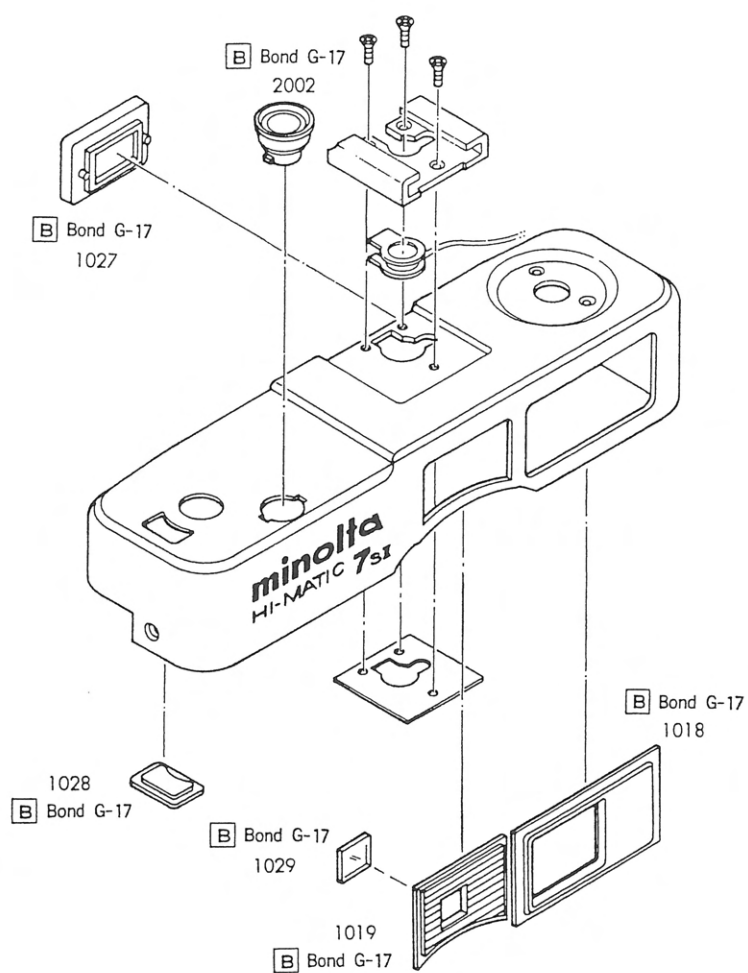
- |   |                  |
|---|------------------|
| [B] : Bond G-17                             | [G] : Grease 335 |
| : Pliobond (Solution by methyl-ethyl-keton) | : Grease 3340    |
| : Screw lock 3M                             | : Permalub F2    |
| : Aron Alpha No. 201                        |                  |
| : Loctite 242                               |                  |















**Minolta**